



Appendix E Laboratory Reports

RTI DL RELEASE - EHP



This document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025
Accreditation Number: 1645



Certificate of Analysis

Sinclair Knight Merz
369 Anne Street
Brisbane QLD 4000
Australia

Attention: Jeremy Wicks

Project 09ENME0031585
Client Reference QE09537
Cronulla Park
Received Date 18/09/2009 12:10:00 PM

Customer Sample ID	Trip01	Trip02
Sample Matrix	WATER	WATER
Labmark Sample No.	1732403	1732404
Date Sampled	17/09/2009	17/09/2009

VOC

Test/Reference	PQL	Unit
----------------	-----	------

1100 BTEX & (C6-C9) in Water by P&T

4-Bromofluorobenzene - Surrogate	-	%	89	86
Benzene	0.5	µg/L	1.6	6.7
Toluene	1	µg/L	4.6	1.1
Ethylbenzene	1	µg/L	2.4	7.5
Meta- & Para- Xylene	2	µg/L	<2.0	7.3
Ortho-Xylene	1	µg/L	<1.0	4.1
Total Xylenes	3	µg/L	<3.0	11
C6-C9 Fraction	20	µg/L	<20.0	44

SVOC

Test/Reference	PQL	Unit
----------------	-----	------

2000 TPH (C10 - C36) in Water by GC

C10-C14 Fraction	40	µg/L	720	520
C15-C28 Fraction	100	µg/L	1230	1210
C29-C36 Fraction	100	µg/L	<100	<100

Metals

Test/Reference	PQL	Unit
----------------	-----	------

3100 Dissolved Metals in Water By ICP/MS

Arsenic	5	µg/L	20	12
Cadmium	5	µg/L	<5	<5
Chromium	5	µg/L	7.5	14
Copper	5	µg/L	<5	5.2
Lead	5	µg/L	<5	<5
Nickel	5	µg/L	9.0	44
Zinc	5	µg/L	21	12

3400 Dissolved Mercury in Water by FIMS

Mercury	0.1	µg/L	<0.1	<0.1
---------	-----	------	------	------

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Analysed
1100 BTEX & (C6-C9) in Water by P&T	Melbourne 1645	23/09/2009	25/09/2009
2000 TPH (C10 - C36) in Water by GC	Melbourne 1645	23/09/2009	25/09/2009
3100 Dissolved Metals in Water By ICP/MS	Melbourne 1645	22/09/2009	23/09/2009
3400 Dissolved Mercury in Water by FIMS	Melbourne 1645	22/09/2009	23/09/2009

Labmark Internal Quality Control Review

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. Matrix spike recoveries are calculated on an 'As Received' basis; the parent sample result is moisture corrected after the % recovery is determined.
3. Proficiency trial results are available on request.
4. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spike or surrogate recoveries.
6. Test samples duplicated or spiked, are for this job only and are identified in the following QC report.
7. SVOC analyses on waters are performed on homogenized, unfiltered sample, unless noted otherwise.
8. When individual results are qualified in the body of a report, refer to the qualifier descriptions that follow.
9. Samples were analysed on an as received basis.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sampling and Preservation Chart for Soils & Waters' for holding times. (LM-FOR-ADM-020)

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgement.
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitability qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as an RPD

Quality Control Results

Laboratory: EN_METALS

Sample, Test, Result Reference	Units	Result	Acceptance Limits	Pass Limits	Qualifying Codes
1737175 [Method Blank]					
3400 Dissolved Mercury in Water by FIMS					
Mercury	µg/L	<0.1	< 0.1	Pass	
1737185 [Method Blank]					
3100 Dissolved Metals in Water By ICP/MS					
Antimony	µg/L	<5	< 5	Pass	
Arsenic	µg/L	<5	< 5	Pass	
Barium	µg/L	<5	< 5	Pass	
Beryllium	µg/L	<5	< 5	Pass	
Boron	µg/L	<5	< 5	Pass	
Cadmium	µg/L	<5	< 5	Pass	
Chromium	µg/L	<5	< 5	Pass	
Cobalt	µg/L	<5	< 5	Pass	
Copper	µg/L	<5	< 5	Pass	
Lead	µg/L	<5	< 5	Pass	
Manganese	µg/L	<5	< 5	Pass	
Molybdenum	µg/L	<5	< 5	Pass	
Nickel	µg/L	<5	< 5	Pass	
Selenium	µg/L	<5	< 5	Pass	
Tin	µg/L	<5	< 5	Pass	
Vanadium	µg/L	<5	< 5	Pass	
Zinc	µg/L	<5	< 5	Pass	
1737176 [Laboratory Control Sample]					
3400 Dissolved Mercury in Water by FIMS			Expected Value	Percent Recovery	
Mercury	µg/L	9.6	10.0	96	80-120 % Pass

Laboratory: EN_METALS

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1737186 [Laboratory Control Sample]							
3100 Dissolved Metals in Water By ICP/MS			Expected Value	Percent Recovery			
Antimony	µg/L	97	100.0	97	80-120 %	Pass	
Arsenic	µg/L	97	100.0	97	80-120 %	Pass	
Barium	µg/L	100	100.0	100	80-120 %	Pass	
Beryllium	µg/L	93	100.0	93	80-120 %	Pass	
Boron	µg/L	110	100.0	107	80-120 %	Pass	
Cadmium	µg/L	100	100.0	105	80-120 %	Pass	
Chromium	µg/L	100	100.0	101	80-120 %	Pass	
Cobalt	µg/L	99	100.0	99	80-120 %	Pass	
Copper	µg/L	100	100.0	100	80-120 %	Pass	
Lead	µg/L	100	100.0	102	80-120 %	Pass	
Manganese	µg/L	98	100.0	98	80-120 %	Pass	
Molybdenum	µg/L	92	100.0	92	80-120 %	Pass	
Nickel	µg/L	98	100.0	98	80-120 %	Pass	
Selenium	µg/L	94	100.0	94	80-120 %	Pass	
Tin	µg/L	100	100.0	100	80-120 %	Pass	
Vanadium	µg/L	99	100.0	99	80-120 %	Pass	
Zinc	µg/L	100	100.0	100	80-120 %	Pass	

Laboratory: EN_SVOC

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1736842 [Method Blank]							
2000 TPH (C10 - C36) in Water by GC							
C10-C14 Fraction	µg/L	<40			< 40	Pass	
C15-C28 Fraction	µg/L	<100			< 100	Pass	
C29-C36 Fraction	µg/L	<100			< 100	Pass	
1736843 [Laboratory Control Sample]							
2000 TPH (C10 - C36) in Water by GC			Expected Value	Percent Recovery			
C10-C14 Fraction	µg/L	2600	200.0	104	70-130 %	Pass	
C15-C28 Fraction	µg/L	2800	200.0	116	70-130 %	Pass	
C29-C36 Fraction	µg/L	2840	200.0	114	70-130 %	Pass	

Laboratory: EN_VOC

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1736430 [Method Blank]							
1100 MAH(BTEX & C6-C9) in Water P&T							
Benzene	µg/L	<0.5			< 0.5	Pass	
C6-C9 Fraction	µg/L	<20.0			< 20	Pass	
Ethylbenzene	µg/L	<1.0			< 1	Pass	
Meta- & Para- Xylene	µg/L	<2.0			< 2	Pass	
Ortho-Xylene	µg/L	<1.0			< 1	Pass	
Toluene	µg/L	<1.0			< 1	Pass	
Total Xylenes	µg/L	<3.0			< 3	Pass	
4-Bromofluorobenzene - Surrogate	%	87			70-130 %	Pass	
1736432 [Laboratory Control Sample]							
1100 MAH(BTEX & C6-C9) in Water P&T			Expected Value	Percent Recovery			
Benzene	µg/L	12	10.0	117	70-130 %	Pass	
C6-C9 Fraction	µg/L	170	140.0	124	70-130 %	Pass	
Ethylbenzene	µg/L	11	10.0	114	70-130 %	Pass	
Meta- & Para- Xylene	µg/L	25	20.0	124	70-130 %	Pass	
Ortho-Xylene	µg/L	12	10.0	116	70-130 %	Pass	
Toluene	µg/L	12	10.0	117	70-130 %	Pass	
Total Xylenes	µg/L	36	30.0	122	70-130 %	Pass	
4-Bromofluorobenzene - Surrogate	%	101			70-130 %	Pass	

Sample Integrity

Custody Seals Intact (if used)	Yes
Attempt to Chill was evident	Yes
Samples correctly preserved	Yes
Organic samples had Teflon liners	Yes
Samples received with Zero Headspace	Yes
Samples received within Holding Time	Yes
Some samples have been subcontracted	Yes

Authorised By

Alex Petridis	Senior Analyst - SVOC
Ruth Callander	Client Services Officer
Mark Herbstreit	Senior Analyst - Metals
Khoa Pham	Analyst - VOC
Olga Alieva	Analyst - SVOC
Patricia Hua	Senior Analyst

Accreditation Number: 1645
Accreditation Number: 1645
Accreditation Number: 1645
Accreditation Number: 1645

Laboratory Manager

David Elliott Laboratory Manager - Melbourne

49-Sch4 - Signature

Final Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

LabMark Environmental shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Labmark Environmental be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

The samples were not collected by Laboratory staff.

RTI DL RELEASE - EHP



SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537		
Site:	Cronulla Park		
Contact:	Jeremy Wicks	Quote No:	EN/003/07
Office:	32 Cordelia Street, South Brisbane Qld 4101	Results Required:	Standard 5-day turnaround
Email:	jwicks@skm.com.au; okanas@skm.com.au	Report Format:	Email, Hard Copy
Phone:		Turn Around:	5-days
		Comments:	Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au

Laboratory Use	
Lab Batch No:	Comments:
Cooler Seal Intact: <u>Yes</u> No N/A	
Sample Temp (chilled): <u>Yes</u> No 15°C	

Relinquished By		Received By		Shipping	
Name: Jeremy Wicks	Date: 18/09/2009	Name: <u>N Clayton</u>	Date: <u>18/09/09</u>	Consignment Note No:	
Company: SKM	Time: 1:30 pm	Company: Labmark	Time: <u>12:10</u>	Transport Company:	

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS											
LAB ID	Sample ID	Sample Depth	Matrix Type St-Sol W-Water	Sample Date	Time	Type/Code	Total Bottles	PH/CA CSO/STEX/MS											
1732403	Trip01		Water	17/9/09			2G, 2V, 1N	x											
1732404	Trip02		Water	17/9/09			2G, 2V, 1N	x											
TOTAL SAMPLES			15					7											



RTI DL RELEASE - EHP

CLIENT:	SKM
ADDRESS / OFFICE:	32 Godelia St Gth Bne.
PROJECT MANAGER (PM):	Jeremy Wicks
PROJECT ID:	2209537
SITE:	P.O. NO.:
RESULTS REQUIRED (Date):	QUOTE NO.:

SAMPLER:	Ona Kanas.	 Australian Laboratory Services Pty Ltd
MOBILE:		
PHONE:		
EMAIL REPORT TO:	ok okanas@skm.com.au	
EMAIL INVOICE TO: (if different to report)	jwicks@skm.com.au	
ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)		



Australian Laboratory Services Pty Ltd

FOR LABORATORY USE ONLY

COOLER SEAL (Circle appropriate)

Intact Yes No N/A

SAMPLE TEMPERATURE

CHILLED Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Notes: e.g. Highly contaminated samples,
Extra volume for QC or trace LORs etc.

Environmental Division
Brisbane
Work Order

EB0907635



Telephone : +61-7-3243 7222

SAMPLE INFORMATION (note: S = Soil, W = Water)					CONTAINER INFORMATION	
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles
1	RINSATE 1	W	11/5	AM	2V 1A 1N	4
2	RINSATE 2	W	12/5	AM	2V 1A 1N	4
3	MW07-0.0-0.1	S	12/5	AM	1G	1
4	MW08-0.0-0.1	S	13/5	AM	1G	1
5	MW08-0.2-0.3	S	13/5	AM	1G	1
6	MW08-0.5-0.6	S	13/5	AM	1G	1
7	RINSATE 3	W	13/5	AM	2V 1N 1G	4
8	MW09-0.0-0.1	S	13/5	AM	1G	1
9	MW09-0.2-0.3	S	13/5	AM	1G	1
10	1	S	15/5	AM	1G	1

RELINQUISHED BY:

RECEIVED BY

METHOD OF SHIPMENT

Date:	12/5
Time:	Am
Date:	
Time:	

Name:	L. Angeles
Of:	ALS
Name:	
Of:	

Date:	13/5/09.
Time:	1640.
Date:	
Time:	

Con' Note No:	
Transport Co:	

atic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

ALS Environmental

CHAIN OF CUSTODY DOCUMENTATION



Australian Laboratory Services Pty Ltd

CLIENT: SKM
 ADDRESS / OFFICE: 32 Cordelia St, Sth Bris
 PROJECT MANAGER (PM): Jeremy Wickes
 PROJECT ID: QEO9537

SAMPLER: Ona Kanas
 MOBILE:
 PHONE:
 EMAIL REPORT TO: Okanas@skm.com.au
 EMAIL INVOICE TO: (if different to report) jwicks@skm.com.au

SITE: P.O. NO.:
 RESULTS REQUIRED (Date): QUOTE NO.:

ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

FOR LABORATORY USE ONLY
 COOLER SEAL (circle appropriate)
 Intact: Yes No N/A
 SAMPLE TEMPERATURE
 CHILLED: Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Notes: e.g. Highly contaminated samples,
 Extra volume for QC or trace LORs etc.

SAMPLE INFORMATION (note: S = Soil, W = Water) CONTAINER INFORMATION

ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles
11	MW03-1.0-1.1	S	11/5	am	250ml Jar	1
12	MW04-0.0-0.1					
13	MW04-0.2-0.3					
14	MW04-0.5-0.6					
15	MW05-0.2-0.1		12/5	am		
16	MW05-0.2-0.5					
17	MW05-0.5-0.6					
	MW05-0.0-1.1					
18	MW06-0.0-0.1					
19	MW06-0.2-0.3					
20	MW06-0.5-0.6					
	MW06-1.0-1.1					

Handwritten notes and markings on the table grid, including 'pH', 'metals (7+4)', 'Asbestos', 'STPH/BTEX', and 'Hold'.

RELINQUISHED BY:
 Name: [Signature] Date: 13/5
 Of: SKM Time: [Signature]

RECEIVED BY:
 Name: L. ANGELES Date: 13/5/09
 Of: ALS Time: 1640

METHOD OF SHIPMENT
 Con' Note No:
 Transport Co:

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved;
 V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
 Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

ALS Environmental

CHAIN OF CUSTODY DOCUMENTATION



Australian Laboratory Services Pty Ltd

CLIENT: SKM
 ADDRESS / OFFICE: 32 Cordelia St, Sth Bris
 PROJECT MANAGER (PM): Jeremy Wicks
 PROJECT ID: QEO9537

SAMPLER: Ona Karas
 MOBILE:
 PHONE:
 EMAIL REPORT TO: Okonors@skm.com.au

SITE: P.O. NO.:

EMAIL INVOICE TO: (if different to report) jwicks@skm.com.au

RESULTS REQUIRED (Date):

QUOTE NO.:

ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

FOR LABORATORY USE ONLY

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

COOLER SEAL (circle appropriate)

Intact: Yes No N/A

SAMPLE TEMPERATURE

CHILLED: Yes No

Notes: e.g. Highly contaminated samples,
 Extra volume for QC or trace LORs etc.

SAMPLE INFORMATION (note: S = Soil, W = Water)

CONTAINER INFORMATION

ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles
21	MW01-0-0.1	S	11/5	am	250ml Jar	1
22	MW01-0.2-0.3	S	11/5	am		1
23	MW01-0.5-0.6	S	11/5	am		1
24	MW01-1.0-1.1	S	11/5	am		1
25	MW02-0.2-0.1	S	11/5	am		1
26	MW02-0.2-0.3	S	11/5	am		1
27	MW02-0.5-0.6	S				
28	MW02-1.0-1.1	S				
29	MW02-1.4-1.5	S				
30	MW03-0-0.1					
31	MW03-0.1-0.2					
31	MW03-0.5-0.6					

RELINQUISHED BY:

RECEIVED BY

METHOD OF SHIPMENT

Name: Ona Karas

Date: 13/5

Name: L. ANGERS

Date: 13/5/09

Con' Note No:

Of: SKM

Time: PM

Of: ALS

Time: 1640

Name:

Date:

Name:

Date:

Transport Co:

Of:

Time:

Of:

Time:

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved;

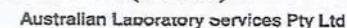
V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;

Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

ALS Environmental

CLIENT:	
ADDRESS / OFFICE:	
PROJECT MANAGER (PM):	
PROJECT ID:	
SITE:	P.O. NO.:
RESULTS REQUIRED (Date):	QUOTE NO.:

EMAIL INVOICE TO: (if different to report)

ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

CHILLED: Yes No

Notes: e.g. Highly contaminated samples,
Extra volume for QC or trace LORs etc.

CONTAINER INFORMATION

ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles
--------	-----------	--------	------	------	-------------	---------------

Extra					
Samples					

32	MWO3-0.2-0.3
----	--------------

33	Nw07 = 0.2 m ³
----	---------------------------

34	MW05	1.0-1.1
----	------	---------

RELINQUISHED BY:

Name: _____
Of: _____
Name: _____
Of: _____

RECEIVED BY

Name:	Date:
Of:	Time:
Name:	Date:
Of:	Time:

METHOD OF SHIPMENT

Con' Note No:	
Transport Co:	

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

ALS Environmental



SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	Quote No:	EN/003/07	Comments: Standard 5-day turnaround Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au
Office:	369 Ann Street, Brisbane Qld 4000	Results Required:		
Email:	jwicks@skm.com.au; okanas@skm.com.au	Report Format:	Email, Hard Copy	
Phone:		Turn Around:	5-days	

Laboratory Use:	
Lab Batch No:	Comments:
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By:		Received By:		Shipping:
Name: Jeremy Wicks	Date: 20/5/2009	Name: T. CREAGH	Date: 17/5/09	Consignment Note No:
Company: SKM	Time: 8:30 am	Company: ALS	Time: 1300	Transport Company:

SAMPLE INFORMATION					CONTAINER INFORMATION			ANALYTICAL REQUIREMENTS							
Lab ID	Sample ID	Sample Depth	Media Type Is Soil W. Water	Date	Time	Type Code	Total Bottles	Ammonia Nitrogen	Metals Pb/Cd	Metals Cu/Zn	Metals Mn/Fe	Metals Ni/Co	Metals Cr/V	Metals As	Metals Hg
1	MW01		Water					x	x						
2	MW02		Water					x	x						
3	MW03		Water					x		x	x				
4	MW04		Water					x		x	x				
5	MW05		Water					x		x	x				
6	MW06		Water					x		x	x				
7	MW07		Water					x		x	x				
8	MW08		Water					x		x	x				
9	MW09		Water					x		x	x				
13 to	DUP04		Water					x		x	x				
10	MWA (CR13)		Water					x							
11	MWB (CR14)		Water					x		x	x				
12	MWC (CR15)		Water					x							
14	Rinsate/Rinsate 4		Water					x							
TOTAL SAMPLES								10	5	5	5				

Environmental Division
Brisbane

Work Order

EB0907913



Telephone : +61-7-3243 7222



Contact:	Jeremy Wicks	Quote No:	EN/003/07	Comments:	
Office:	369 Ann Street, Brisbane Qld 4000	Results Required:			Standard 5-day turnaround
Email:	jwicks@skm.com.au; okanas@skm.com.au	Report Format:	Email, Hard Copy		Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au
Phone:		Turn Around:	5-days		

Laboratory Use	
Lab Batch No:	Comments:
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		Received By		Shipping
Name: Jeremy Wicks	Date: 20/5/2009	Name:	Date:	Consignment Note No:
Company: SKM	Time: 8:30 am	Company: ALS	Time:	Transport Company:

SAMPLE INFORMATION					CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS																					
LAB ID	Sample ID	Sample Depth	Matrix Type S- Soil W- Water	Date	Time	Type / Code	Total Bottles	S-2 Metals	S-19 TPH/BTEX/PAH/P	S-3 TPH/BTEX/PAH/P	S-4 TPH/BTEX/PAH/P	S-5 TPH/BTEX/PAH/P	S-6 TPH/BTEX/PAH/P	S-7 TPH/BTEX/PAH/P	S-8 TPH/BTEX/PAH/P	S-9 TPH/BTEX/PAH/P	S-10 TPH/BTEX/PAH/P	S-11 TPH/BTEX/PAH/P	S-12 TPH/BTEX/PAH/P	S-13 TPH/BTEX/PAH/P	S-14 TPH/BTEX/PAH/P	S-15 TPH/BTEX/PAH/P	S-16 TPH/BTEX/PAH/P	S-17 TPH/BTEX/PAH/P	S-18 TPH/BTEX/PAH/P	S-19 TPH/BTEX/PAH/P	S-20 TPH/BTEX/PAH/P	
SNR	MW06 0.0-0.1		Soil						x																			
SNR	MW09 0.2-0.3		Soil								x																	
1	TP1 0.0-0.1		Soil																									
2	TP1 0.2-0.3		Soil					x																				
SNR	TP2 0.0-0.1		Soil																									
3	TP2 0.2-0.3		Soil																									
4	TP3 0.0-0.1		Soil																									
5	TP3 0.2-0.3		Soil																									
6	TP4 0.0-0.1		Soil																									

Environmental Division
Brisbane
Work Order
19-Sch4 - Signature
EB0907967



Telephone : + 61-7-3243 7222

Environmental Division
Brisbane
Work Order 49-Sch4 - Signature

EB0907967



Telephone : + 61-7-3243 7222

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS											
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Date	Time	Type Code	Total Bottles	8-2 Metals	8-19	TPH/BTEX/PAH/P	8-5	TPH/BTEX/PAH/P	8-4 TPH/BTEX						
7	TP4 0.2-0.3		Soil						x										
8	TP5 0.0-0.1		Soil																
9	TP5 0.2-0.3		Soil						x										
10	TP6 0.0-0.1		Soil																
11	TP6 0.2-0.3		Soil					x											
12	TP7 0.0-0.1		Soil																
13	TP7 0.2-0.3		Soil						x										
14	TP8 0.0-0.1		Soil					x											
15	TP8 0.2-0.3		Soil																
16	TP9 0.0-0.1		Soil																
17	TP9 0.2-0.3		Soil						x										
18	TP10 0.0-0.1		Soil																
19	TP10 0.2-0.3		Soil						x										
20	Dup 02		Soil								x								
21	Dup 03		Soil								x								
5NR	Dup 01		Soil									x							
TOTAL SAMPLES			25					3	6	5	1								

EXTRA 22 RINSATS



SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537		
Site:	Cronulla Park		
Contact:	Jeremy Wicks	Quote No:	EN/003/07
Office:	369 Ann Street, Brisbane Qld 4000	Results Required:	
Email:	jwicks@skm.com.au; okanas@skm.com.au	Report Format:	Email, Hard Copy
Phone:		Turn Around:	5-days
		Comments:	Standard 5-day turnaround Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au

Laboratory Use	
Lab Batch No:	Comments:
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		Received By		Shipping	
Name: Jeremy Wicks	Date: 20/5/2009	Name: T. Creagh	Date: 19/5/09	Consignment Note No:	
Company: SKM	Time: 8:30 am	Company: ALS	Time: 1300	Transport Company:	

SAMPLE INFORMATION				CONTAINER INFORMATION				ANALYTICAL REQUIREMENTS											
LAB ID	Sample ID	Sample Depth	Matrix Type S, Soil W, Water	Page	Line	Type / Qty	Total Barges	Asph	PAHs	PCBs	PFAS	TE	TOX	SV	THY	THY	THY	THY	THY
EB0907635	MW06 0.0-0.1		Soil						x										
EB0907635	MW09 0.2-0.3		Soil																
EB0907967	TP1 0.0-0.1	1	Soil																
EB0907967	TP1 0.2-0.3	2	Soil					x											
EB0907967	TP2 0.2-0.3	3	Soil																
EB0907967	TP3 0.0-0.1	4	Soil																
EB0907967	TP3 0.2-0.3	5	Soil																
EB0907967	TP4 0.0-0.1	6	Soil																
EB0907967	TP4 0.2-0.3	7	Soil																
EB0907967	TP5 0.0-0.1	8	Soil																
EB0907967	TP5 0.2-0.3	9	Soil																
EB0907967	TP6 0.0-0.1	10	Soil																
EB0907967	TP6 0.2-0.3	11	Soil					x											
EB0907967	TP7 0.0-0.1	12	Soil																
EB0907967	TP7 0.2-0.3	13	Soil																
EB0907967	TP8 0.0-0.1	14	Soil					x											
EB0907967	TP8 0.2-0.3	15	Soil																
EB0907967	TP9 0.0-0.1	16	Soil																
EB0907967	TP9 0.2-0.3	17	Soil																
EB0907967	TP10 0.0-0.1	18	Soil																
EB0907967	TP10 0.2-0.3	19	Soil																
EB0907967	Dup 02	20	Soil																
EB0907967	Dup 03	21	Soil																
EB0907635	Dup 01		Soil																
TOTAL SAMPLES																			

Environmental Division
Brisbane
Work Order
EB0907967



Telephone : +61-7-3243 7222



SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537		
Site:	Cronulla Park		
Contact:	Jeremy Wicks	Quote No:	EN/003/07
Office:	369 Ann Street, Brisbane Qld 4000	Results Required:	
Email:	jwicks@skm.com.au; okanas@skm.com.au	Report Format:	Email, Hard Copy
Phone:		Turn Around:	5-days
		Comments: Standard 5-day turnaround Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au	

Laboratory Use		Comments:
Lab Batch No:		
Cooler Seal Intact: Yes No N/A		
Sample Temp (chilled): Yes No		

Relinquished By		Received By		Shipping	
Name: Jeremy Wicks	Date: 3/6/2009	Name:	Date:	Consignment Note No:	
Company: SKM	Time: 1:30 pm	Company: ALS	Time:	Transport Company:	

SAMPLE INFORMATION					CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS									
Lab ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Date	Time	Type Code	Total Bottles	As Received	Agitation	Stirring	Wet Weight	Gravimetric	EDTA Titration	Fluorescence	Plate Count	Wet Weight
1	MW01		Water					x	x							
2	MW02		Water					x	x							
3	MW03		Water					x		x	x					
4	MW04		Water					x		x	x	x	x			
5	MW05		Water					x		x	x	x	x			
6	MW06		Water					x		x	x	x	x			
7	MW07		Water					x		x	x	x	x			
8	MW08		Water					x		x			x			
9	MW09		Water					x		x			x			
10	DUP05		Water					x								
	DUP05a	SKM	Water					x								
11	MWA (CR13)		Water					x		x	x		x			
12	MWB (CR14)		Water						x							
13	MWC (CR15)		Water						x							
14	Drain		Water					x		x	x		x			
TOTAL SAMPLES								11	6	0	0	4	0			

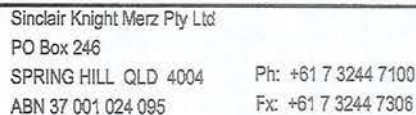
Environmental Division
Brisbane 49-Sch4 - Signature

49-Sch4 - Signature Work Order

EB0908932



Telephone : +61-7-3243 7222



CHAIN OF CUSTODY & ANALYSIS REQUEST

Page 1 of 1

ADDRESS:

PHONE:

FAX:

[illegible]



Project ID:	QE09537		
Site:	Cronulla Park		
Contact:	Jeremy Wicks	Quote No:	EN/003/07
Office:	32 Cordelia Street, South Brisbane Qld 4101	Results Required:	
Email:	jwicks@skm.com.au; okanas@skm.com.au	Report Format:	Email, Hard Copy
Phone:		Turn Around	5 days
		Comments:	
		Standard 5-day turnaround	
		Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au	

Laboratory Use	
Lab Batch No:	Comments:
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		Received By		Shipping
Name: Jeremy Wicks	Date: 18/09/2009	Name: <i>L. ARBELES</i>	Date: <i>18.9.09</i>	Consignment Note No:
Company: SKM	Time: 1:30 pm	Company: ALS <i>ALS</i>	Time: <i>1200</i>	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION	ANALYTICAL REQUIREMENTS													
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Sample Date	Time	Type / Code	Total Bottles	M-5 TPH/C6-	C8-BTEX/Metals	M-10-TPH/C8-	C8-BVOC/PAH	EPO754/Phenols/SIM (12 analytes)	TPH Speciation (Aliphatic/Aromatic)	M-2 S-Metals						
1	MW01		Water	17/9/09			2G, 2V, 1N	x												
2	MW02		Water	17/9/09			2G, 2V, 1N	x												
3	MW03		Water	17/9/09			1G, 2V, 1N													
4	MW04		Water	17/9/09			2G, 2V, 1N			x	x		x	x						
5	MW05		Water	17/9/09			2G, 2V, 1N			x	x		x	x						
6	MW06		Water	17/9/09			2G, 2V, 1N			x	x		x	x						
7	MW07		Water	17/9/09			2G, 2V, 1N			x	x		x	x						
8	MW08		Water	17/9/09			1G, 2V, 1N			x	x		x	x						
9	MW09		Water	17/9/09			1G, 2V, 1N	x												
10	Dup01		Water	17/9/09			2G, 2V, 1N	x												
11	Dup02		Water	17/9/09			2G, 2V, 1N	x												
12	CR13		Water	17/9/09			2G, 2V, 1N			x	x			x						
13	CR14		Water	17/9/09			2G, 2V, 1N	x												
14	CR15		Water	17/9/09			2G, 2V, 1N	x												
15	Drain 1		Water	17/9/09			1G, 2V, 1N			x	x			x						
TOTAL SAMPLES			15					7	8	8	5	8								

16 Trip blank 02 17/9

S. No.	Date	Time	Type / Code	Bottles	M45 TPHC 020/1015X	W10 TPHC 036/000P	EP0733 RH 012 analysis	TPH Specia	Aliphatic A	M2 S. Meta
Water	17/9/09			2G, 2V, 1N	x					
Water	17/9/09			2G, 2V, 1N	x					
Water	17/9/09			1G, 2V, 1N		x	x		x	
Water	17/9/09			2G, 2V, 1N		x	x	x	x	
Water	17/9/09			2G, 2V, 1N		x	x	x	x	
Water	17/9/09			2G, 2V, 1N		x	x	x	x	
Water	17/9/09			2G, 2V, 1N		x	x	x	x	
Water	17/9/09			1G, 2V, 1N	x					
Water	17/9/09			2G, 2V, 1N	x					
Water	17/9/09			2G, 2V, 1N	x					
Water	17/9/09			2G, 2V, 1N		x	x		x	
Water	17/9/09			2G, 2V, 1N	x					
Water	17/9/09			1G, 2V, 1N		x	x		x	
15					7	3	8	5	3	

Environmental Division
Brisbane
49-Sch4 - Signature Work Order
EB0914886



Telephone : + 61-7-3243 7222



SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537		
Site:	Cronulla Park		
Contact:	Jeremy Wicks	Quote No:	EN/003/07
Office:	32 Cordelia Street, South Brisbane Qld 4101	Results Required:	
Email:	jwicks@skm.com.au; okanas@skm.com.au	Report Format:	Email, Hard Copy
Phone:	3026 7526; 3026 7286	Turn Around	
Comments: Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au			

Laboratory Use	
Lab Batch No:	Comments:
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes * No	

Relinquished By		Received By		Shipping	
Name: Jeremy Wicks	Date: 8/10/2009	Name:	Date:	Consignment Note No:	
Company: SKM	Time: 12:00 pm	Company: ALS	Time:	Transport Company:	

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS									
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Sample Date	Time	Type / Code	Total Bottles										
1	MW01		Water	7/10/09			2G, 2V, 1N										
2	MW02		Water	7/10/09			2G, 2V, 1N										
3	MW03		Water	7/10/09			1G, 2V, 1N										
4	MW04		Water	7/10/09			2G, 2V, 1N										
5	MW05		Water	7/10/09			2G, 2V, 1N										
6	MW06		Water	7/10/09			2G, 2V, 1N										
7	MW07		Water	7/10/09			2G, 2V, 1N										
8	MW08		Water	7/10/09			2V, 1N										
9	MW09		Water	7/10/09			1G, 2V, 1N										
10	Dup01		Water	7/10/09			2G, 2V, 1N										
11	Dup02		Water	7/10/09			2G, 2V, 1N										
12	CR13		Water	7/10/09			2G, 2V, 1N										
13	CR14		Water	7/10/09			2G, 2V, 1N										
14	CR15		Water	7/10/09			2G, 2V, 1N										
15	Creek		Water	7/10/09			1G, 2V, 1N										
TOTAL SAMPLES			15														

Christian U.

ALS

8.10.09.

RTI DL RELEASE - EHP
14:30

Environmental Division
Brisbane
49-Sch4 - Signature
Work Order

EB0916017



Telephone : + 61-7-3243 7222



SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537		
Site:	Cronulla Park		
Contact:	Jeremy Wicks	Quote No.:	EN/003/07
Office:	32 Cordelia Street, South Brisbane Qld 4101	Results Required:	
Email:	jwicks@skm.com.au; okanas@skm.com.au	Report Format:	Email, Hard Copy
Phone:	3026 7526; 3026 7286	Turn Around:	7-day
		Comments:	
		Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au	

Laboratory Use:		Comments:
Lab Batch No:		
Cooler Seal Intact: Yes No N/A		
Sample Temp (chilled): Yes No		

Relinquished By		Received By		Shipping
Name: Jeremy Wicks	Date: 8/10/2009	Name:	Date:	Consignment Note No:
Company: SKM	Time: 12:00 pm	Company: ALS	Time:	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS									
LAB ID	Sample ID	Sample Depth	Matrix: Type S: Soil W: Water	Sample Date	Time	Type / Code	Total Bottles	S-M TPT/TEX	TPT/1010-235 with Silica Gel Cleanup								
1	MW01		Water	7/10/09			2G, 2V, 1N	x	x								
2	MW02		Water	7/10/09			2G, 2V, 1N	x	x								
3	MW03		Water	7/10/09			1G, 2V, 1N	x	x								
4	MW04		Water	7/10/09			2G, 2V, 1N	x	x								
5	MW05		Water	7/10/09			2G, 2V, 1N	x	x								
6	MW06		Water	7/10/09			2G, 2V, 1N	x	x								
7	MW07		Water	7/10/09			2G, 2V, 1N	x	x								
8	MW08		Water	7/10/09			2V, 1N	x	x								
9	MW09		Water	7/10/09			1G, 2V, 1N	x	x								
10	Dup01		Water	7/10/09			2G, 2V, 1N	x	x								
11	Dup02		Water	7/10/09			2G, 2V, 1N	x	x								
12	CR13		Water	7/10/09			2G, 2V, 1N	x	x								
13	CR14		Water	7/10/09			2G, 2V, 1N	x	x								
14	CR15		Water	7/10/09			2G, 2V, 1N	x	x								
15	Creek		Water	7/10/09			1G, 2V, 1N	x	x								
TOTAL SAMPLES			15					15	15								

Environmental Division
Brisbane
Work Order
EB0916017



Telephone : + 61-7-3243 7222

Sample Receipt Advice

Client Name: Sinclair Knight Merz
Attention: MR Jeremy Wicks
Client Reference number: QE09537
Cronulla Park

Date Received: 18 September 2009
Due Date: 25 September 2009
Turnaround: Standard

Laboratory Reference
Number: 09ENME0031585

Your Laboratory
Contact: Rebecca Kleinschmidt
+61 7 3902 4600

If you have any queries regarding turnaround and sample progress, technical queries or wish to make changes please contact the laboratory immediately.

Job Information

Sample Integrity

Attempt to Chill was evident	Yes
Samples correctly preserved	Yes
Organic samples had Teflon liners	Yes
Samples received with Zero Headspace	Yes
Samples received within Holding Time	Yes
Some samples have been subcontracted	Yes
Custody Seals Intact (if used)	Yes

Analysis Requested

Analysis Requested	Method Code	Number Of Samples
BTEX & (C6-C9) in Water by P&T	1100	2
Dissolved Mercury in Water by FIMS	3400	2
Dissolved Metals in Water By ICP/MS	3100	2
TPH (C10 - C36) in Water by GC	2000	2

Note

- Turn Around Time starts when samples are received at the Laboratory
 - For samples received after 4pm, Turn Around Time starts the next working day
 - For samples received on the last day of holding time, notification of testing requirements must be given at least 6 hours prior to the sample receipt deadlines; Should the laboratory not receive the information in the required timeframe a suitably qualified results may still be reported.
 - Surcharges may apply for 24, 48 and 72 hour turnaround.
 - Water samples will be discarded after 4 weeks unless notified.
 - Soil samples are chilled for 1 month and will be discarded after 3 months unless notified.
 - Samples submitted for Micro analysis on a Friday may incur a \$150 surcharge and / or be analysed outside holding time (24 Hour Holding Time).
 - The Quoted Due Date does not apply to sub-contracted tests or some in-house tests. Contact your Customer Support Officer for details
- NOTE: Unless advised otherwise - Sample analysis will commence regardless of integrity issues and / or non-conformance and these will be recorded on the final report.

Logged in by : Nathan Clayton

Date : Fri 18 September 2009



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: EB0907635	Page	: 1 of 6
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELLIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ----	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 13-MAY-2009
C-O-C number	: ----	Issue Date	: 25-MAY-2009
Sampler	: Ona Kanas	No. of samples received	: 34
Site	: ----	No. of samples analysed	: 12
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Sarah Ashworth	Organic Chemist	Organics

Environmental Division Brisbane

Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 6
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

RIIDL RELEASE - EHP



Page : 3 of 6
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : OE09537

Analytical Results

Sub-Matrix: SOIL

Client sample ID		Client sampling date / time		Client sample ID		Client sampling date / time	
Compound	CAS Number	LOR	Unit	MW07 0.0-0.1	MW08 0.2-0.3	MW09 0.0-0.1	MW04 0.2-0.3
EA002 : pH (Soils)			pH Unit	5.5	---	---	---
EA055: Moisture Content			%	11.5	14.3	22.7	12.9
EG005T: Total Metals by ICP-AES							
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	13	11	12	9
Copper	7440-50-8	5	mg/kg	5	<5	<5	<5
Lead	7439-92-1	5	mg/kg	4	<5	<5	<5
Nickel	7440-02-0	2	mg/kg	4	<2	<2	<2
Zinc	7440-66-6	5	mg/kg	31	<5	<5	<5
EG035T: Total Recoverable Mercury by FIMS							
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
EP080/071: Total Petroleum Hydrocarbons							
C6 - C9 Fraction		10	mg/kg	<10	---	---	<10
C10 - C14 Fraction		50	mg/kg	<50	---	---	<50
C15 - C28 Fraction		100	mg/kg	<100	---	---	<100
C29 - C36 Fraction		100	mg/kg	<100	---	---	<100
EP080: BTEX							
Benzene	71-43-2	0.2	mg/kg	<0.2	---	---	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	---	---	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	---	---	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	---	---	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	---	---	<0.5
EP080S: TPH(V)/BTEX Surrogates							
1,2-Dichloroethane-D4	17060-07-0	0.1	%	89.6	---	---	91.5
Toluene-D8	2037-26-5	0.1	%	83.4	---	---	86.5
4-Bromofluorobenzene	460-00-4	0.1	%	80.9	---	---	83.7



Page : 4 of 6
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: SOIL		Client sample ID					
		Client sampling date / time					
Compound	CAS Number	LOR	Unit	MW05_0.2-0.3 12-MAY-2009 15:00 EB0907635-016	MW06_0.2-0.3 12-MAY-2009 15:00 EB0907635-019	MW01_0.2-0.3 11-MAY-2009 15:00 EB0907635-022	MW02_0.2-0.3 11-MAY-2009 15:00 EB0907635-026
EA002 : pH (Soils)							
pH Value	---	0.1	pH Unit	6.4	---	---	5.7
EA055: Moisture Content							
^ Moisture Content (dried @ 103°C)	---	1.0	%	9.2	10.7	7.5	16.7
EG005T: Total Metals by ICP-AES							
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5
Cadmium	7440-43-8	1	mg/kg	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	21	14	9	28
Copper	7440-50-8	5	mg/kg	16	<5	<5	<5
Lead	7439-92-1	5	mg/kg	3	<5	8	18
Nickel	7440-02-0	2	mg/kg	10	3	<2	3
Zinc	7440-66-8	5	mg/kg	21	6	<5	18
EG035T: Total Recoverable Mercury by FIMS							
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
EP080/071: Total Petroleum Hydrocarbons							
C6 - C9 Fraction	---	10	mg/kg	<10	---	---	<10
C10 - C14 Fraction	---	50	mg/kg	<50	---	---	<50
C15 - C28 Fraction	---	100	mg/kg	<100	---	---	<100
C29 - C36 Fraction	---	100	mg/kg	<100	---	---	<100
EP080: BTEX							
Benzene	71-43-2	0.2	mg/kg	<0.2	---	---	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	---	---	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	---	---	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	---	---	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	---	---	<0.5
EP080S: TPH(V)/BTEX Surrogates							
1,2-Dichloroethane-D4	17060-07-0	0.1	%	94.6	---	---	89.2
Toluene-D8	2037-26-5	0.1	%	85.1	---	---	84.2
4-Bromofluorobenzene	460-00-4	0.1	%	80.6	---	---	80.5



Page : 5 of 6
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Client sample ID
Client sampling date / time

Compound	CAS Number	LOR	Unit	RINSATE 1 11-MAY-2009 15:00 EB0907635-001	RINSATE 2 12-MAY-2009 15:00 EB0907635-002	RINSATE 3 13-MAY-2009 15:00 EB0907635-007	
EA005: pH			pH Unit				
pH Value		0.01				6.85	
EG020T: Total Metals by ICP-MS							
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	<0.001	
Zinc	7440-66-6	0.005	mg/L	0.005	0.008	<0.005	
EG035T: Total Recoverable Mercury by FIMS							
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	
EP080/071: Total Petroleum Hydrocarbons							
C6 - C9 Fraction		20	µg/L	<20	<20	<20	
C10 - C14 Fraction		50	µg/L	<50	<50	<50	
C15 - C28 Fraction		100	µg/L	<100	<100	<100	
C29 - C36 Fraction		50	µg/L	<50	<50	<50	
EP080: BTEX							
Benzene	71-43-2	1	µg/L	<1	<1	<1	
Toluene	108-88-3	2	µg/L	<2	<2	<2	
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	
EP080S: TPH(V)/BTX Surrogates							
1,2-Dichloroethane-D4	17060-07-0	0.1	%	102	97.0	101	
Toluene-D8	2037-26-5	0.1	%	99.7	98.5	101	
4-Bromofluorobenzene	460-00-4	0.1	%	100	96.7	100	



Page : 6 of 6
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Surrogate Control Limits

Sub-Matrix: SOIL			
Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP080S: TPH(V)/BTX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	121
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
Sub-Matrix: WATER			
Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP080S: TPH(V)/BTX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	120
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	116



Environmental Division

QUALITY CONTROL REPORT

Work Order	: EB0907635	Page	: 1 of 9
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ----	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 13-MAY-2009
C-O-C number	: ----	Issue Date	: 25-MAY-2009
Sampler	: Ona Kanas	No. of samples received	: 34
Order number	: ----	No. of samples analysed	: 12
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Sarah Ashworth	Organic Chemist	Organics

Environmental Division Brisbane

Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053

Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :

Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot

CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

RPD = Relative Percentage Difference

= Indicates failed QC

PROJ DL RELEASE - EHP



Page : 3 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: SOIL

Sub-Matrix: SOIL			Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA055: Moisture Content (QC Lot: 980873)									
EB0907635-010	Dup 01	EA055-103: Moisture Content (dried @ 103°C)	---	1.0	%	12.1	13.0	7.2	0% - 50%
EB0907681-002	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	---	1.0	%	5.6	5.0	12.1	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 985255)									
EB0907635-003	MW07 0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	13	15	11.6	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	4	3	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	5	5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	7	8	16.8	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	31	32	3.8	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 985256)									
EB0907635-003	MW07 0.0-0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 978470)									
EB0907635-003	MW07 0.0-0.1	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 984863)									
EB0907865-001	Anonymous	EP071: C15 - C28 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	---	50	mg/kg	<50	<50	0.0	No Limit
		EP071: C15 - C28 Fraction	---	100	mg/kg	110	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
EB0907865-013	Anonymous	EP071: C10 - C14 Fraction	---	50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEX (QC Lot: 978470)									
EB0907635-003	MW07 0.0-0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: WATER

Sub-Matrix: WATER								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Laboratory Duplicate (DUP) Report		
						Original Result	Duplicate Result	RPD (%)
EA005: pH (QC Lot: 978565)								
EB0907525-002	Anonymous	EA005: pH Value	---	0.01	pH Unit	7.99	7.99	0.0
EB0907621-004	Anonymous	EA005: pH Value	---	0.01	pH Unit	7.15	7.85	9.3
EG020T: Total Metals by ICP-MS (QC Lot: 981671)								



Page : 4 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report									
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)		
EG020T: Total Metals by ICP-MS (QC Lot: 981671) - continued											
EB0907437-001	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.0007	0.0007	0.0	No Limit		
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.002	0.001	0.0	No Limit		
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	0.003	0.004	0.0	No Limit		
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.002	0.002	0.0	No Limit		
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.008	0.009	0.0	No Limit		
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.059	0.055	7.1	0% - 50%		
EB0907741-003	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.001	0.002	0.0	No Limit		
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	0.002	0.003	0.0	No Limit		
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.004	0.004	0.0	No Limit		
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.001	0.002	0.0	No Limit		
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.002	0.003	0.0	No Limit		
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.010	0.008	25.2	No Limit		
EG020T: Total Metals by ICP-MS (QC Lot: 983852)											
EB0907527-002	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.0002	<0.0001	0.0	No Limit		
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.001	<0.001	0.0	No Limit		
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.017	0.017	0.0	0% - 50%		
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.001	0.002	0.0	No Limit		
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.003	0.003	0.0	No Limit		
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.057	0.057	0.0	0% - 50%		
EB0907713-007	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.0004	0.0004	0.0	No Limit		
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.042	0.043	2.9	0% - 20%		
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	0.009	0.009	0.0	No Limit		
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.021	0.021	0.0	0% - 20%		
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.048	0.047	0.0	0% - 20%		
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.007	0.008	0.0	No Limit		
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.325	0.334	2.7	0% - 20%		
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 978477)											
EB0907607-001	Anonymous	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.0	No Limit		
EB0907635-001	RINSATE 1	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.0	No Limit		
EP080: BTEX (QC Lot: 978477)											
EB0907607-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit		
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit		
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit		
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit		
		EP080: ortho-Xylene	106-42-3	2	µg/L	<2	<2	0.0	No Limit		



Page : 5 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				Recovery Limits (%)
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP080: BTEX (QC Lot: 978477) - continued EB0907635-001	RINSATE 1	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0
		EP080: ortho-Xylene	106-42-3	2	µg/L	<2	<2	0.0



Page : 6 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Method Blank (MB) Report		Laboratory Control Spike (LCS) Report			
Method: Compound				Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
CAS Number	LOR	Unit	LCS			Low	High		
EA002 : pH (Soils) (QCLot: 980865)									
EA002: pH Value	---	0.1	pH Unit	---	5.2 pH Unit	101	85	115	
EG005T: Total Metals by ICP-AES (QCLot: 985255)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.8 mg/kg	112	78	124	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.82 mg/kg	104	77	117	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	61.6 mg/kg	111	83	119	
EG005T: Copper	7440-50-8	5	mg/kg	<5	54.7 mg/kg	107	82	122	
EG005T: Lead	7439-92-1	5	mg/kg	<5	55.5 mg/kg	99.4	83	117	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.1 mg/kg	104	83	121	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	105 mg/kg	106	82	120	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 985256)									
EG035T: Mercury	7439-97-6	0.1 0.10	mg/kg mg/kg	<0.1 ---	--- 1.34 mg/kg	--- 89.8	--- 78	--- 129	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978470)									
EP080: C6 - C9 Fraction	---	10	mg/kg	<10	16 mg/kg	91.5	71	123	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 984863)									
EP071: C10 - C14 Fraction	---	50	mg/kg	<50	259 mg/kg	80.4	65	112	
EP071: C15 - C28 Fraction	---	100	mg/kg	<100	524 mg/kg	79.4	76.2	122	
EP071: C29 - C36 Fraction	---	100	mg/kg	<100	---	---	---	---	
EP080: BTEX (QCLot: 978470)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	92.9	78	121	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	86.8	78	121	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	92.7	72	119	
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	91.5	66	121	
EP080: ortho-Xylene	106-42-3								
EP080: 95-47-6	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	90.8	70	118	

Sub-Matrix: WATER

Sub-Matrix: WATER				Laboratory Control Spike (LCS) Report				
Method Blank (MB) Report					Spike		Recovery Limits (%)	
Result		Unit			Concentration		Low High	
Method: Compound								
EA005: pH (QCLot: 978565)								
CAS Number	LOR	Unit						
-----	0.01	pH Unit		100 82 118				
EA005: pH Value								
EG020T: Total Metals by ICP-MS (QCLot: 981671)								
EG020A-T: Arsenic								
7440-38-2	0.001	mg/L		<0.001	0.100 mg/L		95.6 74 114	
EG020A-T: Cadmium								
7440-43-9	0.0001	mg/L		<0.0001	0.100 mg/L		98.4 74 118	



Page : 7 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report		Laboratory Control Spike (LCS) Report					
Method: Compound				LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
								Low	High		
EG020T: Total Metals by ICP-MS (QCLot: 981671) - continued											
EG020A-T: Chromium				7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	99.2	81	127
EG020A-T: Copper				7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	97.5	75	119
EG020A-T: Lead				7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	99.5	80	116
EG020A-T: Nickel				7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	98.2	75	121
EG020A-T: Zinc				7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	99.0	73	127
EG020T: Total Metals by ICP-MS (QCLot: 983852)											
EG020A-T: Arsenic				7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	94.4	74	114
EG020A-T: Cadmium				7440-43-9	0.001	mg/L	<0.0001	0.100 mg/L	108	74	118
EG020A-T: Chromium				7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	111	81	127
EG020A-T: Copper				7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	106	75	119
EG020A-T: Lead				7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	102	80	116
EG020A-T: Nickel				7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	104	75	121
EG020A-T: Zinc				7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	109	73	127
EG035T: Total Recoverable Mercury by FIMS (QCLot: 979405)											
EG035T: Mercury				7439-97-6	0.0001	mg/L	<0.0001	0.0100 mg/L	99.7	82	122
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978477)											
EP080: C6 - C9 Fraction				----	20	µg/L	<20	160 µg/L	96.5	73	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978693)											
EP071: C10 - C14 Fraction				----	50	µg/L	<50	600 µg/L	64.6	49	110
EP071: C15 - C28 Fraction				----	100	µg/L	<100	1020 µg/L	72.8	58	130
EP071: C29 - C36 Fraction				----	50	µg/L	<50	----	----	----	----
EP080: BTEX (QCLot: 978477)											
EP080: Benzene				71-43-2	1	µg/L	<1	10 µg/L	94.4	77.6	122
EP080: Toluene				108-88-3	2	µg/L	<2	10 µg/L	94.7	74	122
EP080: Ethylbenzene				100-41-4	2	µg/L	<2	10 µg/L	96.1	73	126
EP080: meta- & para-Xylene				108-38-3	2	µg/L	<2	20 µg/L	95.1	70.4	129
				106-42-3							
EP080: ortho-Xylene				95-47-6	2	µg/L	<2	10 µg/L	94.6	74.3	126



Page : 8 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: SOIL

Sub-Matrix: SOIL		Matrix Spike (MS) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
					MS	Low	High	
EG005T: Total Metals by ICP-AES (QCLot: 985255)								
EB0907635-005	MW08_0.2-03	EG005T: Arsenic	7440-38-2	50 mg/kg	97.8	70	130	
		EG005T: Cadmium	7440-43-9	25 mg/kg	106	70	130	
		EG005T: Chromium	7440-47-3	50 mg/kg	108	70	130	
		EG005T: Copper	7440-50-8	50 mg/kg	104	70	130	
		EG005T: Lead	7439-92-1	50 mg/kg	99.6	70	130	
		EG005T: Nickel	7440-02-0	50 mg/kg	106	70	130	
		EG005T: Zinc	7440-66-6	50 mg/kg	103	70	130	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 985256)								
EB0907635-005	MW08_0.2-03	EG035T: Mercury	7439-97-6	5.0 mg/kg	83.0	70	130	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978470)								
EB0907635-013	MW04_0.2-0.3	EP080: C6 - C9 Fraction	---	28 mg/kg	76.7	70	130	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 984863)								
EB0907635-013	MW04_0.2-0.3	EP071: C10 - C14 Fraction	---	259 mg/kg	74.1	70	130	
		EP071: C15 - C28 Fraction	---	524 mg/kg	78.6	70	130	
EP080: BTEX (QCLot: 978470)								
EB0907635-013	MW04_0.2-0.3	EP080: Benzene	71-43-2	2 mg/kg	94.5	70	130	
		EP080: Toluene	108-88-3	2 mg/kg	86.6	70	130	

Sub-Matrix: WATER

Matrix Spike (MS) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
					MS		Low	High
EG020T: Total Metals by ICP-MS (QCLot: 981671)								
EB0907437-002	Anonymous	EG020A-T: Arsenic	7440-38-2	1,000 mg/L	102		70	130
		EG020A-T: Cadmium	7440-43-9	0.500 mg/L	98.5		70	130
		EG020A-T: Chromium	7440-47-3	1,000 mg/L	98.4		70	130
		EG020A-T: Copper	7440-50-8	1,000 mg/L	94.7		70	130
		EG020A-T: Lead	7439-92-1	1,000 mg/L	92.2		70	130
		EG020A-T: Nickel	7440-02-0	1,000 mg/L	97.2		70	130
		EG020A-T: Zinc	7440-66-6	1,000 mg/L	97.7		70	130
EG020T: Total Metals by ICP-MS (QCLot: 983852)								
EB0907635-007	RINSATE 3	EG020A-T: Arsenic	7440-38-2	1,000 mg/L	106		70	130
		EG020A-T: Cadmium	7440-43-9	0.500 mg/L	107		70	130
		EG020A-T: Chromium	7440-47-3	1,000 mg/L	102		70	130
		EG020A-T: Copper	7440-50-8	1,000 mg/L	102		70	130



Page : 9 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09637

Sub-Matrix: WATER

Sub-Matrix: WATER			Method: Compound	CAS Number	Matrix Spike (MS) Report				
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
						MS	Low	High	
EG020T: Total Metals by ICP-MS (QCLot: 983852) - continued									
EB0907635-007	RINSATE 3	EG020A-T: Lead	7439-92-1	1,000 mg/L	105	70	130		
		EG020A-T: Nickel	7440-02-0	1,000 mg/L	101	70	130		
		EG020A-T: Zinc	7440-66-6	1,000 mg/L	105	70	130		
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978477)									
EB0907623-013	Anonymous	EP080: C6 - C9 Fraction	----	140 µg/L	74.7	70	130		
EP080: BTEX (QCLot: 978477)									
EB0907623-013	Anonymous	EP080: Benzene	71-43-2	10 µg/L	81.0	70	130		
		EP080: Toluene	108-88-3	10 µg/L	77.8	70	130		



Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: EB0907635	Page	: 1 of 9
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ----	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 13-MAY-2009
C-O-C number	: ----	Issue Date	: 25-MAY-2009
Sampler	: Ona Kanas	No. of samples received	: 34
Order number	: ----	No. of samples analysed	: 12
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: SOIL

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA002 : pH (Soils)							
Soil Glass Jar - Unpreserved MW04_0.2-0.3,	MW02_0.2-0.3	18-MAY-2009	18-MAY-2009	✓	18-MAY-2009	18-MAY-2009	✓
Soil Glass Jar - Unpreserved MW07 0.0-0.1,	MW05_0.2-0.3	18-MAY-2009	19-MAY-2009	✓	18-MAY-2009	18-MAY-2009	✓
EA055: Moisture Content							
Soil Glass Jar - Unpreserved MW04_0.2-0.3,	MW01_0.2-0.3,	---	----	----	18-MAY-2009	18-MAY-2009	✓
MW02_0.2-0.3		---					
Soil Glass Jar - Unpreserved MW07 0.0-0.1,	MW05_0.2-0.3,	---	----	----	18-MAY-2009	19-MAY-2009	✓
MW06_0.2-0.3							
Soil Glass Jar - Unpreserved MW08_0.2-03,	MW09_0.0-0.1,	---	----	----	18-MAY-2009	20-MAY-2009	✓
Dup 01							
EG005T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved MW04_0.2-0.3,	MW01_0.2-0.3,	22-MAY-2009	07-NOV-2009	✓	22-MAY-2009	07-NOV-2009	✓
MW02_0.2-0.3							
Soil Glass Jar - Unpreserved MW07 0.0-0.1,	MW05_0.2-0.3,	22-MAY-2009	08-NOV-2009	✓	22-MAY-2009	08-NOV-2009	✓
MW06_0.2-0.3							
Soil Glass Jar - Unpreserved MW08_0.2-03,	MW09_0.0-0.1,	22-MAY-2009	09-NOV-2009	✓	22-MAY-2009	09-NOV-2009	✓
Dup 01							



Page : 3 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Matrix: SOIL Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation		Analysis	
Container / Client Sample ID(s)			Date extracted	Due for extraction	Date analysed	Due for analysis
EG035T: Total Recoverable Mercury by FIMS						
Soil Glass Jar - Unpreserved						
MW04_0.2-0.3,	MW01_0.2-0.3,	11-MAY-2009	22-MAY-2009	07-NOV-2009	22-MAY-2009	08-JUN-2009 ✓
MW02_0.2-0.3						
Soil Glass Jar - Unpreserved						
MW07 0.0-0.1,	MW05_0.2-0.3,	12-MAY-2009	22-MAY-2009	08-NOV-2009	22-MAY-2009	09-JUN-2009 ✓
MW06_0.2-0.3						
Soil Glass Jar - Unpreserved						
MW08_0.2-0.3,	MW09_0.0-0.1,	13-MAY-2009	22-MAY-2009	09-NOV-2009	22-MAY-2009	10-JUN-2009 ✓
Dup 01						
EP080/071: Total Petroleum Hydrocarbons						
Soil Glass Jar - Unpreserved						
MW04_0.2-0.3,	MW02_0.2-0.3,	11-MAY-2009	14-MAY-2009	25-MAY-2009	14-MAY-2009	25-MAY-2009 ✓
Soil Glass Jar - Unpreserved						
MW04_0.2-0.3,	MW02_0.2-0.3,	11-MAY-2009	21-MAY-2009	25-MAY-2009	22-MAY-2009	30-JUN-2009 ✓
Soil Glass Jar - Unpreserved						
MW07 0.0-0.1,	MW05_0.2-0.3,	12-MAY-2009	14-MAY-2009	26-MAY-2009	14-MAY-2009	26-MAY-2009 ✓
Soil Glass Jar - Unpreserved						
MW07 0.0-0.1,	MW05_0.2-0.3,	12-MAY-2009	21-MAY-2009	26-MAY-2009	22-MAY-2009	30-JUN-2009 ✓
EP080: BTEX						
Soil Glass Jar - Unpreserved						
MW04_0.2-0.3,	MW02_0.2-0.3,	11-MAY-2009	14-MAY-2009	25-MAY-2009	14-MAY-2009	25-MAY-2009 ✓
Soil Glass Jar - Unpreserved						
MW07 0.0-0.1,	MW05_0.2-0.3,	12-MAY-2009	14-MAY-2009	26-MAY-2009	14-MAY-2009	26-MAY-2009 ✓

Matrix: WATER Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method	Container / Client Sample ID(s)	Sample Date	Extraction / Preparation		Analysis	
			Date extracted	Due for extraction	Date analysed	Evaluation
EA005: pH						
Amber Glass Bottle - Unpreserved						
RINSATE 3		13-MAY-2009	----	----	13-MAY-2009	✓
EG020T: Total Metals by ICP-MS						
Clear Plastic Bottle - Unfiltered; Lab-acidified						
RINSATE 1		11-MAY-2009	18-MAY-2009	07-NOV-2009	18-MAY-2009	✓
Clear Plastic Bottle - Unfiltered; Lab-acidified						
RINSATE 2		12-MAY-2009	18-MAY-2009	08-NOV-2009	18-MAY-2009	✓
Clear Plastic Bottle - Unfiltered; Lab-acidified						
RINSATE 3		13-MAY-2009	22-MAY-2009	09-NOV-2009	22-MAY-2009	✓



Matrix: WATER

Method	Container / Client Sample ID(s)	Sample Date	Extraction / Preparation		Analysis			
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS								
Clear Plastic Bottle - Unfiltered; Lab-acidified RINSATE 1		11-MAY-2009	----	----	----	15-MAY-2009	08-JUN-2009	✓
Clear Plastic Bottle - Unfiltered; Lab-acidified RINSATE 2		12-MAY-2009	----	----	----	15-MAY-2009	09-JUN-2009	✓
Clear Plastic Bottle - Unfiltered; Lab-acidified RINSATE 3		13-MAY-2009	----	----	----	15-MAY-2009	10-JUN-2009	✓
EP080/071: Total Petroleum Hydrocarbons								
Amber Glass Bottle - Unpreserved RINSATE 1		11-MAY-2009	15-MAY-2009	18-MAY-2009	✓	17-MAY-2009	24-JUN-2009	✓
Amber Glass Bottle - Unpreserved RINSATE 2		12-MAY-2009	15-MAY-2009	19-MAY-2009	✓	17-MAY-2009	24-JUN-2009	✓
Amber Glass Bottle - Unpreserved RINSATE 3		13-MAY-2009	15-MAY-2009	20-MAY-2009	✓	17-MAY-2009	24-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 1		11-MAY-2009	----	----	----	14-MAY-2009	25-MAY-2009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 2		12-MAY-2009	----	----	----	14-MAY-2009	26-MAY-2009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 3		13-MAY-2009	----	----	----	14-MAY-2009	27-MAY-2009	✓
EP080: BTEX								
Amber VOC Vial - HCl or NaHSO4 RINSATE 1		11-MAY-2009	----	----	----	14-MAY-2009	25-MAY-2009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 2		12-MAY-2009	----	----	----	14-MAY-2009	26-MAY-2009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 3		13-MAY-2009	----	----	----	14-MAY-2009	27-MAY-2009	✓



Page : 5 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: SOIL

Evaluation: * = Quality Control frequency not within specification; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification	
Analytical Methods		QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055-703	2	19	10.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
	EG035T	1	9	11.1	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by FIMS	EG005T	1	9	11.1	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	19	10.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	4	25.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
pH (1:5)	EA002	1	13	7.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	9	11.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	9	11.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	19	5.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	4	25.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Total Mercury by FIMS	EG035T	1	9	11.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	9	11.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	19	5.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	4	25.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Total Mercury by FIMS	EG035T	1	9	11.1	5.0	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	9	11.1	5.0	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	19	5.3	5.0	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	4	25.0	5.0	✓	ALS QCS3 requirement

Matrix: WATER

Evaluation: * = Quality Control frequency not within specification; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)		Quality Control Specification	
		QC	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
pH	EA005	2	19	10.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	4	40	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	14	14.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
pH	EA005	2	19	10.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	2	40	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	13	7.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	14	7.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Page : 6 of 9
 Work Order : EB0907635
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537



Matrix: WATER

Quality Control Sample Type

Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Analytical Methods	Method	Count		Rate (%)		Quality Control Specification	
		QC	Regular	Actual	Expected	Evaluation	
Method Blanks (MB)							
Total Mercury by FIMS	EG035T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	2	40	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	13	7.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	14	7.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Total Metals by ICP-MS - Suite A	EG020A-T	2	40	5.0	5.0	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	14	7.1	5.0	✓	ALS QCS3 requirement



Page : 7 of 9
 Work Order : EB0907635
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Asbestos - Count (Solid)	ASB-SOL	SOIL	Asbestos Count on solid matrices using PLM conducted by Subcontracting Laboratory
pH (1:5)	EA002	SOIL	(APHA 21st ed., 4500H ⁺) pH is determined on soil samples after a 1:5 soil/water leach. This method is compliant with NEPM (1999) Schedule B(3) (Method 103)
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (1999) Schedule B(3) (Method 102)
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550 APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)
pH	EA005	WATER	APHA 21st ed. 4500 H ⁺ B. pH of water samples is determined by ISE either manually or by automated pH meter. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020 ALS SWI-EN/EG020); The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)



Page : 8 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Preparation Methods		Method	Matrix	Method Descriptions
1:5 solid / water leach for soluble analytes		EN34	SOIL	10 g of soil is mixed with 50 mL of distilled water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.
Hot Block Digest for metals in soils sediments and sludges		EN69	SOIL	USEPA 200.2 Mod. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (1999) Schedule B(3) (Method 202)
Methanolic Extraction of Solids for Purge and Trap		ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option B - Non-concentrating)		ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.
Digestion for Total Recoverable Metals		EN25	WATER	USEPA SW846-3005 Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (1999) Schedule B(3) (Appendix 2)
Separatory Funnel Extraction of Liquids		ORG14	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appendix 2). ALS default excludes sediment which may be resident in the container.



Page : 9 of 9
Work Order : EB0907635
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Duplicate outliers occur.
- For all matrices, no Laboratory Control outliers occur.
- For all matrices, no Matrix Spike outliers occur.

Regular Sample Surrogates

- For all regular sample matrices, no surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.



Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)
Comprehensive Report

Work Order : **EB0907635**

Client : **SINCLAIR KNIGHT MERZ**
Contact : **ONA KANAS**
Address : **32 CORDELIA STREET**
BRISBANE QLD, AUSTRALIA 4101

Laboratory : **Environmental Division Brisbane**
Contact : **Tim Kilmister**
Address : **32 Shand Street Stafford QLD Australia**
4053

E-mail : **okanas@skm.com.au**
Telephone : **----**
Facsimile : **----**

E-mail : **Services.Brisbane@alsenviro.com**
Telephone : **+61-7-3243 7222**
Facsimile : **+61-7-3243 7218**

Project : **QE09537**
Order number : **----**
C-O-C number : **----**
Site : **----**
Sampler : **Ona Kanas**

Page : **1 of 3**
Quote number : **ES2009SINKNI0322 (EN/003/09)**
QC Level : **NEPM 1999 Schedule B(3) and ALS**
QCS3 requirement

Dates

Date Samples Received : **13-MAY-2009**
Client Requested Due Date : **25-MAY-2009**

Issue Date : **14-MAY-2009 13:23**
Scheduled Reporting Date : **25-MAY-2009**

Delivery Details

Mode of Delivery : **Client Drop off**
No. of coolers/boxes : **2 MEDIUM**
Security Seal : **Intact.**

Temperature : **7.0,5.6 C - Ice present**
No. of samples received : **34**
No. of samples analysed : **17**

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Requested Deliverables
- Samples received in appropriately pretreated and preserved containers.
- Sample(s) have been received within recommended holding times.
- Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).
- Asbestos analysis will be subcontracted to Queensland Laboratory.
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Maggie Kahi.
- Analytical work for this work order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of work order.



Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- No sample container / preservation non-compliance exist.

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Matrix: SOIL

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL No analysis requested	SOIL - ASB-SOL (Subcontracted) Asbestos - Count (Solid)	SOIL - EA002 pH (1:5)	SOIL - S-02 Metals (incl. Digestion)	SOIL - S-05 TPH/BTEX/3 Metals
EB0907635-003	12-MAY-2009 15:00	MW07_0.0-0.1					
EB0907635-004	13-MAY-2009 15:00	MW08_0.0-0.1		✓			
EB0907635-005	13-MAY-2009 15:00	MW08_0.2-0.3				✓	
EB0907635-006	13-MAY-2009 15:00	MW08_0.5-0.6	✓				
EB0907635-008	13-MAY-2009 15:00	MW09_0.0-0.1				✓	
EB0907635-009	13-MAY-2009 15:00	MW09_0.2-0.3					
EB0907635-010	13-MAY-2009 15:00	Dup 01				✓	
EB0907635-011	11-MAY-2009 15:00	MW03_1.0-1.1	✓				
EB0907635-012	11-MAY-2009 15:00	MW04_0.0-0.1		✓			
EB0907635-013	11-MAY-2009 15:00	MW04_0.2-0.3			✓		✓
EB0907635-014	11-MAY-2009 15:00	MW04_0.5-0.6	✓				
EB0907635-015	12-MAY-2009 15:00	MW05_0.0-0.1		✓			
EB0907635-016	12-MAY-2009 15:00	MW05_0.2-0.3			✓		✓
EB0907635-017	12-MAY-2009 15:00	MW05_0.5-0.6	✓				
EB0907635-018	12-MAY-2009 15:00	MW06_0.0-0.1		✓			
EB0907635-019	12-MAY-2009 15:00	MW06_0.2-0.3				✓	
EB0907635-020	12-MAY-2009 15:00	MW06_0.5-0.6	✓				
EB0907635-021	11-MAY-2009 15:00	MW01_0.0-0.1	✓				
EB0907635-022	11-MAY-2009 15:00	MW01_0.2-0.3				✓	
EB0907635-023	11-MAY-2009 15:00	MW01_0.5-0.6	✓				
EB0907635-024	11-MAY-2009 15:00	MW01_1.0-1.1	✓				
EB0907635-025	11-MAY-2009 15:00	MW02_0.0-0.1	✓				
EB0907635-026	11-MAY-2009 15:00	MW02_0.2-0.3			✓		✓
EB0907635-027	11-MAY-2009 15:00	MW02_0.5-0.6		✓			
EB0907635-028	11-MAY-2009 15:00	MW02_1.0-1.1	✓				
EB0907635-029	11-MAY-2009 15:00	MW02_1.4-1.5	✓				
EB0907635-030	11-MAY-2009 15:00	MW03_0.0-0.1	✓				
EB0907635-031	11-MAY-2009 15:00	MW03_0.5-0.6	✓				
EB0907635-032	11-MAY-2009 15:00	MW03_0.2-0.3	✓				
EB0907635-033	12-MAY-2009 15:00	MW07_0.2-0.3	✓				
EB0907635-034	11-MAY-2009 15:00	MW05_1.0-1.1	✓				

Issue Date : 14-MAY-2009 13:23
 Page : 3 of 3
 Work Order : EB0907635
 Client : SINCLAIR KNIGHT MERZ



Matrix: WATER

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - EA005: pH	WATER - W-05T TPH/BTEX/8 Metals (Total)
EB0907635-001	11-MAY-2009 15:00	RINSATE 1		✓
EB0907635-002	12-MAY-2009 15:00	RINSATE 2		✓
EB0907635-007	13-MAY-2009 15:00	RINSATE 3	✓	✓

Requested Deliverables

MR JEREMY WICKS

- *AU Certificate of Analysis - NATA (COA)	Email	jwicks@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jwicks@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jwicks@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	jwicks@skm.com.au
- A4 - AU Tax Invoice (INV)	Email	jwicks@skm.com.au
- Default - Chain of Custody (COC)	Email	jwicks@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	jwicks@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	jwicks@skm.com.au
- EDI Format - XTab (XTAB)	Email	jwicks@skm.com.au
- Trigger - Subcontract Report (SUBCO)	Email	jwicks@skm.com.au

ONA KANAS

- *AU Certificate of Analysis - NATA (COA)	Email	okanas@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	okanas@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	okanas@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	okanas@skm.com.au
- Default - Chain of Custody (COC)	Email	okanas@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	okanas@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	okanas@skm.com.au
- EDI Format - XTab (XTAB)	Email	okanas@skm.com.au
- Trigger - Subcontract Report (SUBCO)	Email	okanas@skm.com.au

Job #: BSQ080884
ID Date: 18/05/09

Date Sampled: 11/13/05/09

Certificate of Analysis

ALS BATCH #: EB0907635

SAMPLED BY: ALS Environmental

SAMPLE IDENTIFICATION: Five samples as submitted

SCOPE: Microscope examination for the presence of asbestos.

INTRODUCTION: Five samples as submitted by ALS Environmental, were examined for the presence of asbestos.

METHODOLOGY: Samples are examined in accordance with the methodology outlined in the Australian Standards (AS 4964 – 2004) and In-House Method QLA003.

ALS No.	Sample Description	Weight / Dimensions (L/W/T)	Sample ID	Asbestos Detected (Y/N)	Fibre Type Detected
4	MW08-0.0-0.0.1 - Non homogenous soil sample	86.77g	884 - 01	N	No Asbestos Detected*
12	MW04-0.0-0.0.1 - Non homogenous soil sample	63.92g	884 - 2	N	No Asbestos Detected*
15	MW05-0.0-0.0.1 - Non homogenous soil sample	73.82g	884 - 3	N	No Asbestos Detected*
18	MW06-0.0-0.1 - Non homogenous soil sample	59.56g	884 - 4	N	No Asbestos Detected*
27	MW02-0.5-0.6 - Non homogenous soil sample	79.11g	884 - 5	N	No Asbestos Detected*

Table 1 - Results of sample examination using polarised light microscopy (PLM) including Dispersion Staining

*No Asbestos Detected at the Reporting Limit of 0.1g/kg.

49-Sch4 - Signature

49-Sch4 - Signature

NATA Approved Identifier
Michael Creighton

NATA Approved Signatory
Michael Creighton

SCOPE OF ACCREDITATION: Class 7.82.31: Qualitative identification of asbestos types in bulk samples by polarised light microscopy



This document is issued in accordance with NATA's accreditation requirements
Accredited for compliance with ISO/IEC 17025
NATA accreditation number: 15172
This document may not be reproduced except in full



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: EB0907913	Page	: 1 of 21
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELLIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ----	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 19-MAY-2009
C-O-C number	: ----	Issue Date	: 27-MAY-2009
Sampler	: O Kana & M McLeod	No. of samples received	: 14
Site	: Cronulla Park	No. of samples analysed	: 14
Quote number	: ENV003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Matthew Goodwin	Senior Organic Chemist	Organics
Sarah Ashworth	Organic Chemist	Organics

Environmental Division Brisbane

Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053

Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

- PAH/Phenols: Sample MW04 shows poor 2-Fluorobiphenyl surrogate recovery due to suspected matrix interference. Insufficient sample for re-extraction and re-analysis.
- Pesticides: Results for Monocrotophos should be scrutinised as QC data indicates abnormally low recovery.
- Pesticides/PCB: Insufficient sample for MW08 has been provided for standard analysis. Where applicable LOR values have been adjusted accordingly. It appears that sample container was not full upon receipt at ALS.



Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER	Client sample ID				Unit
	Client sampling date / time				
	CAS Number	LOR			
Compound	MW01	MW02	MW03	MW04	MW05
EG020F: Dissolved Metals by ICP-MS	18-MAY-2009 11:00	18-MAY-2009 11:00	18-MAY-2009 11:00	18-MAY-2009 11:00	19-MAY-2009 11:00
Arsenic	EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005
7440-38-2	<0.001	<0.001	<0.001	0.003	0.003
7440-43-9	<0.0001	0.0006	<0.0001	<0.0001	<0.0001
7440-47-3	0.010	0.009	<0.001	<0.001	0.003
7440-50-8	0.021	0.018	<0.001	<0.001	<0.001
7439-92-1	0.026	0.032	<0.001	<0.001	<0.001
7440-02-0	0.032	0.100	0.004	0.013	0.013
7440-66-6	0.100	0.359	0.033	<0.005	<0.005
EG035F: Dissolved Mercury by FIMS					
Mercury	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK055G: Ammonia as N by Discrete Analyser					
Ammonia as N	0.06	0.12	0.52	228	120
EP066: Polychlorinated Biphenyls (PCB)					
Total Polychlorinated biphenyls	---	---	<1	<1	<1
EP068A: Organochlorine Pesticides (OC)					
alpha-BHC	---	---	<0.5	<0.5	<0.5
Hexachlorobenzene (HCB)	---	---	<0.5	<0.5	<0.5
beta-BHC	---	---	<0.5	<0.5	<0.5
gamma-BHC	---	---	<0.5	<0.5	<0.5
delta-BHC	---	---	<0.5	<0.5	<0.5
Heptachlor	---	---	<0.5	<0.5	<0.5
Aldrin	---	---	<0.5	<0.5	<0.5
Heptachlor epoxide	---	---	<0.5	<0.5	<0.5
trans-Chlordane	---	---	<0.5	<0.5	<0.5
alpha-Endosulfan	---	---	<0.5	<0.5	<0.5
cis-Chlordane	---	---	<0.5	<0.5	<0.5
Dieldrin	---	---	<0.5	<0.5	<0.5
4,4'-DDE	---	---	<0.5	<0.5	<0.5
Endrin	---	---	<0.5	<0.5	<0.5
beta-Endosulfan	---	---	<0.5	<0.5	<0.5
4,4'-DDD	---	---	<0.5	<0.5	<0.5
Endrin aldehyde	---	---	<0.5	<0.5	<0.5
Endosulfan sulfate	---	---	<0.5	<0.5	<0.5
4,4'-DDT	---	---	<2	<2	<2
Endrin ketone	---	---	<0.5	<0.5	<0.5
Methoxychlor	---	---	<2	<2	<2
EP068B: Organophosphorus Pesticides (OP)					
Dichlorvos	---	---	<0.5	<0.5	<0.5



Page : 4 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time				
Compound	CAS Number	LOR	Unit	MW01	MW02	MW03	MW04	MW05
EP068B: Organophosphorus Pesticides (OP) - Continued								
Demeton-S-methyl	919-86-8	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Monocrotophos	6923-22-4	2	µg/L	---	---	<2	<2	<2
Dimethoate	60-51-5	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Diazinon	333-41-5	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Parathion-methyl	298-00-0	2	µg/L	---	---	<2	<2	<2
Malathion	121-75-5	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Fenthion	55-38-9	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Chlorpyrifos'	2921-88-2	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Parathion	56-38-2	2	µg/L	---	---	<2	<2	<2
Pirimphos-ethyl	23505-41-1	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Chlorfenvinphos	470-90-6	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Bromophos-ethyl	4824-78-6	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Fenamiphos	22224-92-6	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Prothiofos	34643-46-4	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Ethion	563-12-2	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Carbophenothion	786-19-6	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Azinphos Methyl	86-50-0	0.5	µg/L	---	---	<0.5	<0.5	<0.5
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	5	µg/L	---	---	<5	5	<5
Toluene	108-88-3	5	µg/L	---	---	<5	<5	<5
Ethylbenzene	100-41-4	5	µg/L	---	---	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	5	µg/L	---	---	<5	<5	<5
Styrene	100-42-5	5	µg/L	---	---	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L	---	---	<5	<5	<5
Isopropylbenzene	98-82-8	5	µg/L	---	---	<5	<5	<5
n-Propylbenzene	103-65-1	5	µg/L	---	---	<5	6	<5
1,3,5-Trimethylbenzene	108-67-8	5	µg/L	---	---	<5	<5	<5
sec-Butylbenzene	135-98-8	5	µg/L	---	---	<5	<5	<5
1,2,4-Trimethylbenzene	95-63-6	5	µg/L	---	---	<5	<5	<5
tert-Butylbenzene	98-06-6	5	µg/L	---	---	<5	<5	<5
p-Isopropyltoluene	99-87-6	5	µg/L	---	---	<5	<5	<5
n-Butylbenzene	104-51-8	5	µg/L	---	---	<5	<5	<5
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	50	µg/L	---	---	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L	---	---	<50	<50	<50
4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	---	---	<50	<50	<50
2-Hexanone (MIBK)	591-78-6	50	µg/L	---	---	<50	<50	<50



Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		Client sampling date / time		Client sampling date / time		Client sampling date / time		Client sampling date / time	
		CAS Number	LOR	Unit	MW01	MW02	MW03	MW04	MW05				
Compound					18-MAY-2009 11:00	18-MAY-2009 11:00	18-MAY-2009 11:00	18-MAY-2009 11:00	19-MAY-2009 11:00				
EP074C: Sulfonated Compounds					EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005				
Carbon disulfide		75-15-0	5	µg/L	---	---	<5	<5	<5				
EP074D: Fumigants													
2,2-Dichloropropane		594-20-7	5	µg/L	---	---	<5	<5	<5				
1,2-Dichloropropane		78-87-5	5	µg/L	---	---	<5	<5	<5				
cis-1,3-Dichloropropylene		10061-01-5	5	µg/L	---	---	<5	<5	<5				
trans-1,3-Dichloropropylene		10061-02-6	5	µg/L	---	---	<5	<5	<5				
1,2-Dibromoethane (EDB)		106-93-4	5	µg/L	---	---	<5	<5	<5				
EP074E: Halogenated Aliphatic Compounds													
Dichlorodifluoromethane		75-71-8	50	µg/L	---	---	<50	<50	<50				
Chloromethane		74-87-3	50	µg/L	---	---	<50	<50	<50				
Vinyl chloride		75-01-4	50	µg/L	---	---	<50	<50	<50				
Bromomethane		74-83-9	50	µg/L	---	---	<50	<50	<50				
Chloroethane		75-00-3	50	µg/L	---	---	<50	<50	<50				
Trichlorofluoromethane		75-69-4	50	µg/L	---	---	<50	<50	<50				
1,1-Dichloroethene		75-35-4	5	µg/L	---	---	<5	<5	<5				
Iodomethane		74-88-4	5	µg/L	---	---	<5	<5	<5				
trans-1,2-Dichloroethane		156-60-5	5	µg/L	---	---	<5	<5	<5				
1,1-Dichloroethane		75-34-3	5	µg/L	---	---	<5	<5	<5				
cis-1,2-Dichloroethane		156-59-2	5	µg/L	---	---	<5	<5	<5				
1,1,1-Trichloroethane		71-55-6	5	µg/L	---	---	<5	<5	<5				
1,1-Dichloropropylene		563-68-6	5	µg/L	---	---	<5	<5	<5				
Carbon Tetrachloride		56-23-5	5	µg/L	---	---	<5	<5	<5				
1,2-Dichloroethane		107-06-2	5	µg/L	---	---	<5	<5	<5				
Trichloroethene		79-01-6	5	µg/L	---	---	<5	<5	<5				
Dibromomethane		74-95-3	5	µg/L	---	---	<5	<5	<5				
1,1,2-Trichloroethane		79-00-5	5	µg/L	---	---	<5	<5	<5				
1,3-Dichloropropane		142-28-9	5	µg/L	---	---	<5	<5	<5				
Tetrachloroethene		127-18-4	5	µg/L	---	---	<5	<5	<5				
1,1,1,2-Tetrachloroethane		630-20-6	5	µg/L	---	---	<5	<5	<5				
trans-1,4-Dichloro-2-butene		110-57-6	5	µg/L	---	---	<5	<5	<5				
cis-1,4-Dichloro-2-butene		1476-11-5	5	µg/L	---	---	<5	<5	<5				
1,1,2,2-Tetrachloroethane		79-34-5	5	µg/L	---	---	<5	<5	<5				
1,2,3-Trichloropropane		96-18-4	5	µg/L	---	---	<5	<5	<5				
Pentachloroethane		76-01-7	5	µg/L	---	---	<5	<5	<5				
1,2-Dibromo-3-chloropropane		96-12-8	5	µg/L	---	---	<5	<5	<5				
Hexachlorobutadiene		87-68-3	5	µg/L	---	---	<5	<5	<5				
EP074F: Halogenated Aromatic Compounds													
Chlorobenzene		108-90-7	5	µg/L	---	---	<5	8	26				



Page : 6 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : OE09537

Analytical Results

Sub-Matrix: WATER		Client sample ID				
		Client sampling date / time		LOR		Unit
Compound	CAS Number	MW01	MW02	MW03	MW04	MW05
EB0907913-001						
EB0907913-002						
EB0907913-003						
EB0907913-004						
EB0907913-005						
EP074F: Halogenated Aromatic Compounds - Continued						
Bromobenzene	108-86-1	5	µg/L			
2-Chlorotoluene	95-49-8	5	µg/L			
4-Chlorotoluene	106-43-4	5	µg/L			
1,3-Dichlorobenzene	541-73-1	5	µg/L			
1,4-Dichlorobenzene	106-46-7	5	µg/L			
1,2-Dichlorobenzene	95-50-1	5	µg/L			
1,2,4-Trichlorobenzene	120-82-1	5	µg/L			
1,2,3-Trichlorobenzene	87-61-6	5	µg/L			
EP074G: Trihalomethanes						
Chloroform	67-66-3	5	µg/L			
Bromodichloromethane	75-27-4	5	µg/L			
Dibromochloromethane	124-48-1	5	µg/L			
Bromoform	75-25-2	5	µg/L			
EP074H: Naphthalene						
Naphthalene	91-20-3	7	µg/L			
EP075(SIM)A: Phenolic Compounds						
Phenol	108-95-2	1.0	µg/L			
2-Chlorophenol	95-57-8	1.0	µg/L			
2-Methylphenol	95-48-7	1.0	µg/L			
3- & 4-Methylphenol	1319-77-3	2.0	µg/L			
2-Nitrophenol	88-75-5	1.0	µg/L			
2,4-Dimethylphenol	105-67-9	1.0	µg/L			
2,4-Dichlorophenol	120-83-2	1.0	µg/L			
2,6-Dichlorophenol	87-85-0	1.0	µg/L			
4-Chloro-3-Methylphenol	59-50-7	1.0	µg/L			
2,4,6-Trichlorophenol	88-06-2	1.0	µg/L			
2,4,5-Trichlorophenol	95-95-4	1.0	µg/L			
Pentachlorophenol	87-86-5	2.0	µg/L			
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons						
Naphthalene	91-20-3	1.0	µg/L			
Acenaphthylene	208-96-8	1.0	µg/L			
Acenaphthene	83-32-9	1.0	µg/L			
Fluorene	86-73-7	1.0	µg/L			
Phenanthrene	85-01-8	1.0	µg/L			
Anthracene	120-12-7	1.0	µg/L			
Fluoranthene	206-44-0	1.0	µg/L			
Pyrene	129-00-0	1.0	µg/L			
Benz(a)anthracene	56-55-3	1.0	µg/L			



Page : 7 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		Unit		LOR		MW01	MW02	MW03	MW04	MW05
Compound		CAS Number	Unit	EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005						
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued														
Chrysene	218-01-9	1.0	µg/L	---	---	<1.0	<1.0	<1.0						
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	---	---	<1.0	<1.0	<1.0						
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	---	---	<1.0	<1.0	<1.0						
Benzo(a)pyrene	50-32-8	0.5	µg/L	---	---	<0.5	<0.5	<0.5						
Indeno(1,2,3-cd)pyrene	193-39-5	1.0	µg/L	---	---	<1.0	<1.0	<1.0						
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	---	---	<1.0	<1.0	<1.0						
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	---	---	<1.0	<1.0	<1.0						
EP080/071: Total Petroleum Hydrocarbons														
C6 - C9 Fraction	---	20	µg/L	<20	<20	<20	<20	<20						
C10 - C14 Fraction	---	50	µg/L	<50	<50	<50	<50	<50						
C15 - C28 Fraction	---	100	µg/L	<100	<100	<100	<100	<100						
C29 - C36 Fraction	---	50	µg/L	<50	<50	<50	<50	<50						
EP080: BTEX														
Benzene	71-43-2	1	µg/L	<1	<1	<1	<1	<1						
Toluene	108-88-3	2	µg/L	<2	<2	<2	<2	<2						
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	<2	<2						
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	<2	<2						
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	<2	<2						
EP066S: PCB Surrogate														
Decachlorobiphenyl	2051-24-3	0.1	%	---	---	83.4	---	---						
EP068S: Organochlorine Pesticide Surrogate														
Dibromo-DDE	21655-73-2	0.1	%	---	---	97.0	---	---						
EP068T: Organophosphorus Pesticide Surrogate														
DEF	78-48-8	0.1	%	---	---	88.4	---	---						
EP074S: VOC Surrogates														
1,2-Dichloroethane-D4	17060-07-0	0.1	%	---	---	102	---	---						
Toluene-D8	2037-26-5	0.1	%	---	---	97.0	---	---						
4-Bromofluorobenzene	460-00-4	0.1	%	---	---	93.5	---	---						
EP075(SIM)S: Phenolic Compound Surrogates														
Phenol-d6	13127-88-3	0.1	%	---	---	34.3	---	---						
2-Chlorophenol-D4	93951-73-6	0.1	%	---	---	76.6	---	---						
2,4,6-Tribromophenol	118-79-6	0.1	%	---	---	97.3	---	---						
EP075(SIM)T: PAH Surrogates														
2-Fluorobiphenyl	321-60-8	0.1	%	---	---	90.0	---	---						
Anthracene-d10	1719-06-8	0.1	%	---	---	111	---	---						
4-Terphenyl-d14	1718-51-0	0.1	%	---	---	100	---	---						
EP080S: TPH(V)/BTEX Surrogates														



Page : 8 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER	Client sample ID			Client sampling date / time						
	CAS Number	LOR	Unit	MW01	MW02	MW03	MW04	MW05		
EP080S: TPH(V)/BTX Surrogates - Continued										
1,2-Dichloroethane-D4	17060-07-0	0.1	%	106	106	106	109	106		
Toluene-D8	2037-26-5	0.1	%	104	106	106	105	103		
4-Bromofluorobenzene	460-00-4	0.1	%	103	107	103	108	106		
				EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005		



Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time							MWA (CR13)	
Compound	CAS Number	LOR	Unit	MW06	MW07	MW08	MW09	MWA (CR13)				
				18-MAY-2009 11:00	18-MAY-2009 11:00	19-MAY-2009 11:00	19-MAY-2009 11:00	19-MAY-2009 11:00				
				EB0907913-006	EB0907913-007	EB0907913-008	EB0907913-009	EB0907913-010				
EG020F: Dissolved Metals by ICP-MS												
Arsenic	7440-38-2	0.001	mg/L	0.008	0.006	<0.001	<0.001	<0.001	<0.001	0.019		
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Chromium	7440-47-3	0.001	mg/L	0.001	0.006	<0.001	<0.001	<0.001	<0.001	<0.001		
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.003	0.001	0.001	0.001	<0.001		
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001		
Nickel	7440-02-0	0.001	mg/L	0.016	0.039	0.003	0.003	0.003	0.001	0.001		
Zinc	7440-66-6	0.005	mg/L	0.029	<0.005	<0.005	0.038	0.038	0.025	0.025		
EG035F: Dissolved Mercury by FIMS												
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
EK055G: Ammonia as N by Discrete Analyser												
Ammonia as N	7664-41-7	0.01	mg/L	18.8	43.4	27.0	0.58	0.58	0.58	0.58		
EP066: Polychlorinated Biphenyls (PCB)												
Total Polychlorinated biphenyls				<1	<1	<6	<1	<1	<1	<1		
EP068A: Organochlorine Pesticides (OC)												
alpha-BHC	319-84-6	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
beta-BHC	319-85-7	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
gamma-BHC	58-89-9	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
delta-BHC	319-86-8	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Heptachlor	76-44-8	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Aldrin	309-00-2	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Dieldrin	60-57-1	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
4,4'-DDE	72-55-9	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Endrin	72-20-8	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
4,4'-DDD	72-54-8	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
4,4'-DDT	50-29-3	2	µg/L	<2	<2	<3	<2	<2	<2	<2		
Endrin ketone	53494-70-5	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		
Methoxychlor	72-43-5	2	µg/L	<2	<2	<3	<2	<2	<2	<2		
EP068B: Organophosphorus Pesticides (OP)												
Dichlorvos	62-73-7	0.5	µg/L	<0.5	<0.5	<2.9	<0.5	<0.5	<0.5	<0.5		



Page : 10 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER		Client sample ID				Client sampling date / time		MW06		MW07		MW08		MW09		MWA (CR13)	
								18-MAY-2009 11:00		18-MAY-2009 11:00		19-MAY-2009 11:00		19-MAY-2009 11:00		19-MAY-2009 11:00	
								EB0907913-006		EB0907913-007		EB0907913-008		EB0907913-009		EB0907913-010	
Compound	CAS Number	LOR	Unit														
EP068B: Organophosphorus Pesticides (OP) - Continued																	
Demeton-S-methyl	919-86-8	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Monocrotophos	6923-22-4	2	µg/L					<2		<2		<3		<2		---	---
Dimethoate	60-51-5	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Diazinon	333-41-5	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Parathion-methyl	298-00-0	2	µg/L					<2		<2		<3		<2		---	---
Malathion	121-75-5	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Fenthion	55-38-9	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Chlorpyrifos	2921-88-2	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Parathion	56-38-2	2	µg/L					<2		<2		<3		<2		---	---
Pirimphos-ethyl	23505-41-1	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Chlorfenvinphos	470-90-6	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Bromophos-ethyl	4824-78-6	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Fenamiphos	22224-92-6	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Prothiofos	34643-46-4	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Ethion	563-12-2	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Carbophenothion	786-19-6	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
Azinphos Methyl	86-50-0	0.5	µg/L					<0.5		<0.5		<2.9		<0.5		---	---
EP074A: Monocyclic Aromatic Hydrocarbons																	
Benzene	71-43-2	5	µg/L					<5		<5		<5		<5		---	---
Toluene	108-88-3	5	µg/L					9		<5		<5		<5		---	---
Ethylbenzene	100-41-4	5	µg/L					<5		<5		10		<5		---	---
meta- & para-Xylene	108-38-3	5	µg/L					<5		<5		9		<5		---	---
Styrene	100-42-5	5	µg/L					<5		<5		<5		<5		---	---
ortho-Xylene	95-47-6	5	µg/L					<5		<5		<5		<5		---	---
Isopropylbenzene	98-82-8	5	µg/L					<5		<5		<5		<5		---	---
n-Propylbenzene	103-65-1	5	µg/L					<5		<5		<5		<5		---	---
1,3,5-Trimethylbenzene	108-67-8	5	µg/L					<5		<5		<5		<5		---	---
sec-Butylbenzene	135-98-8	5	µg/L					<5		<5		<5		<5		---	---
1,2,4-Trimethylbenzene	95-63-6	5	µg/L					<5		<5		24		<5		---	---
tert-Butylbenzene	98-06-6	5	µg/L					<5		<5		<5		<5		---	---
p-Isopropyltoluene	99-87-6	5	µg/L					<5		<5		19		<5		---	---
n-Butylbenzene	104-51-8	5	µg/L					<5		<5		<5		<5		---	---
EP074B: Oxygenated Compounds																	
Vinyl Acetate	108-05-4	50	µg/L					<50		<50		<50		<50		---	---
2-Butanone (MEK)	78-93-3	50	µg/L					<50		<50		<50		<50		---	---
4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L					<50		<50		<50		<50		---	---
2-Hexanone (MIBK)	591-78-6	50	µg/L					<50		<50		<50		<50		---	---



Page : 11 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time						
Compound	CAS Number	LOR	Unit	MW06	MW07	MW08	MW09	MWA (CR13)		
				18-MAY-2009 11:00 EB0907913-006	18-MAY-2009 11:00 EB0907913-007	19-MAY-2009 11:00 EB0907913-008	19-MAY-2009 11:00 EB0907913-009	19-MAY-2009 11:00 EB0907913-010		
EP074C: Sulfonated Compounds										
Carbon disulfide	75-15-0	5	µg/L	<5	<5	<5	<5	---		
EP074D: Fumigants										
2,2-Dichloropropane	594-20-7	5	µg/L	<5	<5	<5	<5	---		
1,2-Dichloropropane	78-87-5	5	µg/L	<5	<5	<5	<5	---		
cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	<5	<5	---		
trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	<5	<5	---		
1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	<5	<5	---		
EP074E: Halogenated Aliphatic Compounds										
Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	<50	<50	---		
Chloromethane	74-87-3	50	µg/L	<50	<50	<50	<50	---		
Vinyl chloride	75-01-4	50	µg/L	<50	<50	<50	<50	---		
Bromomethane	74-83-9	50	µg/L	<50	<50	<50	<50	---		
Chloroethane	75-00-3	50	µg/L	<50	<50	<50	<50	---		
Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	<50	<50	---		
1,1-Dichloroethene	75-35-4	5	µg/L	<5	<5	<5	<5	---		
Iodomethane	74-88-4	5	µg/L	<5	<5	<5	<5	---		
trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	<5	<5	<5	---		
1,1-Dichloroethane	75-34-3	5	µg/L	<5	<5	<5	<5	---		
cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	<5	<5	<5	---		
1,1,1-Trichloroethane	71-55-6	5	µg/L	<5	<5	<5	<5	---		
1,1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	<5	<5	---		
Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	<5	<5	---		
1,2-Dichloroethane	107-06-2	5	µg/L	<5	<5	<5	<5	---		
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5	<5	---		
Dibromomethane	74-95-3	5	µg/L	<5	<5	<5	<5	---		
1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	<5	<5	<5	---		
1,3-Dichloropropane	142-28-9	5	µg/L	<5	<5	<5	<5	---		
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5	<5	---		
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	<5	<5	---		
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	<5	<5	---		
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	<5	<5	---		
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	<5	<5	---		
1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	<5	<5	<5	---		
Pentachloroethane	76-01-7	5	µg/L	<5	<5	<5	<5	---		
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	<5	<5	---		
Hexachlorobutadiene	87-68-3	5	µg/L	<5	<5	<5	<5	---		
EP074F: Halogenated Aromatic Compounds										
Chlorobenzene	108-90-7	5	µg/L	7	13	<5	<5	---		



Page : 12 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Compound		Client sample ID		Client sampling date / time		LOR		Unit		MW06	MW07	MW08	MW09	MWA (CR13)
		CAS Number								18-MAY-2009 11:00 EB0907913-006	18-MAY-2009 11:00 EB0907913-007	19-MAY-2009 11:00 EB0907913-008	19-MAY-2009 11:00 EB0907913-009	19-MAY-2009 11:00 EB0907913-010
EP074F: Halogenated Aromatic Compounds - Continued														
Bromobenzene		108-86-1	5					µg/L		<5	<5	<5	<5	---
2-Chlorotoluene		95-49-8	5					µg/L		<5	<5	<5	<5	---
4-Chlorotoluene		106-43-4	5					µg/L		<5	<5	<5	<5	---
1,3-Dichlorobenzene		541-73-1	5					µg/L		<5	<5	<5	<5	---
1,4-Dichlorobenzene		106-46-7	5					µg/L		11	26	<5	<5	---
1,2-Dichlorobenzene		95-50-1	5					µg/L		<5	<5	<5	<5	---
1,2,4-Trichlorobenzene		120-82-1	5					µg/L		<5	<5	<5	<5	---
1,2,3-Trichlorobenzene		87-61-6	5					µg/L		<5	<5	<5	<5	---
EP074G: Trihalomethanes														
Chloroform		67-66-3	5					µg/L		<5	<5	<5	<5	---
Bromodichloromethane		75-27-4	5					µg/L		<5	<5	<5	<5	---
Dibromochloromethane		124-48-1	5					µg/L		<5	<5	<5	<5	---
Bromoform		75-25-2	5					µg/L		<5	<5	<5	<5	---
EP074H: Naphthalene														
Naphthalene		91-20-3	7					µg/L		12	10	<7	<7	---
EP075(SIM)A: Phenolic Compounds														
Phenol		108-95-2	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
2-Chlorophenol		95-57-8	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
2-Methylphenol		95-48-7	1.0					µg/L		1.8	<1.0	<1.0	<1.0	---
3- & 4-Methylphenol		1319-77-3	2.0					µg/L		<2.0	<2.0	<2.0	<2.0	---
2-Nitrophenol		88-75-5	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
2,4-Dimethylphenol		105-67-9	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
2,4-Dichlorophenol		120-83-2	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
2,6-Dichlorophenol		87-65-0	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
4-Chloro-3-Methylphenol		59-50-7	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
2,4,6-Trichlorophenol		88-06-2	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
2,4,5-Trichlorophenol		95-95-4	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
Pentachlorophenol		87-86-5	2.0					µg/L		<2.0	<2.0	<2.0	<2.0	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons														
Naphthalene		91-20-3	1.0					µg/L		7.5	3.4	2.4	<1.0	---
Acenaphthylene		208-96-8	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
Acenaphthene		83-32-9	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
Fluorene		86-73-7	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
Phenanthrene		85-01-8	1.0					µg/L		1.8	<1.0	1.1	<1.0	---
Anthracene		120-12-7	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
Fluoranthene		206-44-0	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
Pyrene		129-00-0	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---
Benz(a)anthracene		56-55-3	1.0					µg/L		<1.0	<1.0	<1.0	<1.0	---

Page : 13 of 21
 Work Order : EB0907913
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537



Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		MW06		MW07		MW08		MW09		MWA (CR13)	
						18-MAY-2009 11:00		18-MAY-2009 11:00		19-MAY-2009 11:00		19-MAY-2009 11:00		19-MAY-2009 11:00	
Compound		CAS Number	LOR	Unit		ES0907913-006		ES0907913-007		EB0907913-008		EB0907913-009		EB0907913-010	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued															
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
EP080/071: Total Petroleum Hydrocarbons															
C6 - C9 Fraction	---	20	µg/L	50	50	50	50	50	50	50	50	50	50	50	<20
C10 - C14 Fraction	---	50	µg/L	840	590	840	590	840	590	840	590	840	590	840	<50
C15 - C28 Fraction	---	100	µg/L	2500	1900	2500	1900	2500	1900	2500	1900	2500	1900	2500	200
C29 - C36 Fraction	---	50	µg/L	710	680	710	680	710	680	710	680	710	680	710	<50
EP080: BTEX															
Benzene	71-43-2	1	µg/L	2	5	2	5	2	5	2	5	2	5	2	<1
Toluene	108-88-3	2	µg/L	10	<2	10	<2	10	<2	10	<2	10	<2	10	<2
Ethylbenzene	100-41-4	2	µg/L	<2	4	<2	4	<2	4	<2	4	<2	4	<2	<2
meta- & para-Xylene	108-38-3	2	µg/L	2	4	2	4	2	4	2	4	2	4	2	<2
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EP066S: PCB Surrogate															
Decachlorobiphenyl	2051-24-3	0.1	%	82.4	69.2	82.4	69.2	82.4	69.2	82.4	69.2	82.4	69.2	82.4	64.2
EP068S: Organochlorine Pesticide Surrogate															
Dibromo-DDE	21655-73-2	0.1	%	91.8	79.1	91.8	79.1	91.8	79.1	91.8	79.1	91.8	79.1	91.8	71.2
EP068T: Organophosphorus Pesticide Surrogate															
DEF	78-48-8	0.1	%	87.2	69.3	87.2	69.3	87.2	69.3	87.2	69.3	87.2	69.3	87.2	72.8
EP074S: VOC Surrogates															
1,2-Dichloroethane-D4	17060-07-0	0.1	%	98.8	97.9	98.8	97.9	98.8	97.9	98.8	97.9	98.8	97.9	98.8	104
Toluene-D8	2037-26-5	0.1	%	91.7	93.9	91.7	93.9	91.7	93.9	91.7	93.9	91.7	93.9	91.7	99.8
4-Bromofluorobenzene	460-00-4	0.1	%	94.0	91.7	94.0	91.7	94.0	91.7	94.0	91.7	94.0	91.7	94.0	97.3
EP075(SIM)S: Phenolic Compound Surrogates															
Phenol-d6	13127-88-3	0.1	%	48.9	38.3	48.9	38.3	48.9	38.3	48.9	38.3	48.9	38.3	48.9	21.7
2-Chlorophenol-D4	93951-73-6	0.1	%	90.9	74.4	90.9	74.4	90.9	74.4	90.9	74.4	90.9	74.4	90.9	41.8
2,4,6-Tribromophenol	118-79-6	0.1	%	85.9	72.1	85.9	72.1	85.9	72.1	85.9	72.1	85.9	72.1	85.9	64.6
EP075(SIM)T: PAH Surrogates															
2-Fluorobiphenyl	321-60-8	0.1	%	66.3	53.2	66.3	53.2	66.3	53.2	66.3	53.2	66.3	53.2	66.3	51.6
Anthracene-d10	1719-06-8	0.1	%	106	90.5	106	90.5	106	90.5	106	90.5	106	90.5	106	78.7
4-Terphenyl-d14	1718-51-0	0.1	%	96.3	80.3	96.3	80.3	96.3	80.3	96.3	80.3	96.3	80.3	96.3	76.7
EP080S: TPH(V)/BTX Surrogates															

Page : 14 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537



Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER									
Compound	Client sample ID		Client sampling date / time		Client sample ID				
	CAS Number	LOR	Unit		MW06	MW07	MW08	MW09	MWA (CR13)
EP080S: TPH(V)/BTX Surrogates - Continued									
1,2-Dichloroethane-D4	17060-07-0	0.1	%		102	101	95.0	108	106
Toluene-D8	2037-26-5	0.1	%		100	102	96.4	109	106
4-Bromofluorobenzene	460-00-4	0.1	%		104	101	98.0	107	105
					EB0907913-006	EB0907913-007	EB0907913-008	EB0907913-009	EB0907913-010

RTI DL RELEASE - EHP



Page : 15 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		MWB (CR14)		MWC (CR15)		DUP04		Rinsate/ Rinsate 4	
						19-MAY-2009 11:00		19-MAY-2009 11:00		18-MAY-2009 11:00		18-MAY-2009 11:00	
Compound		CAS Number	LOR	Unit		EB0907913-011		EB0907913-012		EB0907913-013		EB0907913-014	
EG020F: Dissolved Metals by ICP-MS													
Arsenic		7440-38-2	0.001	mg/L		<0.001		<0.001		0.009		----	----
Cadmium		7440-43-9	0.0001	mg/L		0.0003		<0.0001		<0.0001		----	----
Chromium		7440-47-3	0.001	mg/L		0.001		<0.001		<0.001		----	----
Copper		7440-50-8	0.001	mg/L		0.006		0.002		<0.001		----	----
Lead		7439-92-1	0.001	mg/L		0.006		<0.001		<0.001		----	----
Nickel		7440-02-0	0.001	mg/L		0.006		0.002		0.019		----	----
Zinc		7440-66-6	0.005	mg/L		0.079		0.014		0.028		----	----
EG020T: Total Metals by ICP-MS													
Arsenic		7440-38-2	0.001	mg/L				----		----		<0.001	----
Cadmium		7440-43-9	0.0001	mg/L				----		----		<0.0001	----
Chromium		7440-47-3	0.001	mg/L				----		----		<0.001	----
Copper		7440-50-8	0.001	mg/L				----		----		<0.001	----
Lead		7439-92-1	0.001	mg/L				----		----		<0.001	----
Nickel		7440-02-0	0.001	mg/L				----		----		<0.001	----
Zinc		7440-66-6	0.005	mg/L				----		----		0.005	----
EG035F: Dissolved Mercury by FIMS													
Mercury		7439-97-6	0.0001	mg/L		<0.0001		<0.0001		<0.0001		----	----
EG035T: Total Recoverable Mercury by FIMS													
Mercury		7439-97-6	0.0001	mg/L				----		----		<0.0001	----
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N		7664-41-7	0.01	mg/L		0.14		----		----		----	----
EP066: Polychlorinated Biphenyls (PCB)													
Total Polychlorinated biphenyls		----	1	µg/L		<1		----		----		----	----
EP068A: Organochlorine Pesticides (OC)													
alpha-BHC		319-84-6	0.5	µg/L		<0.5		----		----		----	----
Hexachlorobenzene (HCB)		118-74-1	0.5	µg/L		<0.5		----		----		----	----
beta-BHC		319-85-7	0.5	µg/L		<0.5		----		----		----	----
gamma-BHC		58-89-9	0.5	µg/L		<0.5		----		----		----	----
delta-BHC		319-86-8	0.5	µg/L		<0.5		----		----		----	----
Heptachlor		76-44-8	0.5	µg/L		<0.5		----		----		----	----
Aldrin		309-00-2	0.5	µg/L		<0.5		----		----		----	----
Heptachlor epoxide		1024-57-3	0.5	µg/L		<0.5		----		----		----	----
trans-Chlordane		5103-74-2	0.5	µg/L		<0.5		----		----		----	----
alpha-Endosulfan		959-98-8	0.5	µg/L		<0.5		----		----		----	----
cis-Chlordane		5103-71-9	0.5	µg/L		<0.5		----		----		----	----
Dieldrin		60-57-1	0.5	µg/L		<0.5		----		----		----	----
4,4'-DDE		72-55-9	0.5	µg/L		<0.5		----		----		----	----



Page : 16 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Compound	CAS Number	Client sample ID		Unit	MWB (CR14)	MWC (CR15)	DUP04	Rinsate/ Rinsate 4	
		Client sampling date / time	LOR		19-MAY-2009 11:00	19-MAY-2009 11:00	18-MAY-2009 11:00	18-MAY-2009 11:00	
Endrin	72-20-8	0.5	µg/L	<0.5	EB0907913-011	EB0907913-012	EB0907913-013	EB0907913-014	---
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5					---
4,4'-DDD	72-54-8	0.5	µg/L	<0.5					---
Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5					---
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5					---
4,4'-DDT	50-29-3	2	µg/L	<2					---
Endrin ketone	53494-70-5	0.5	µg/L	<0.5					---
Methoxychlor	72-43-5	2	µg/L	<2					---
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L	<0.5					---
Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5					---
Monocrotophos	6923-22-4	2	µg/L	<2					---
Dimethoate	60-51-5	0.5	µg/L	<0.5					---
Diazinon	333-41-5	0.5	µg/L	<0.5					---
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5					---
Parathion-methyl	298-00-0	2	µg/L	<2					---
Malathion	121-75-5	0.5	µg/L	<0.5					---
Fenthion	55-38-9	0.5	µg/L	<0.5					---
Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5					---
Parathion	56-38-2	2	µg/L	<2					---
Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5					---
Chlorfenvinphos	470-90-6	0.5	µg/L	<0.5					---
Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5					---
Fenamiphos	22224-92-6	0.5	µg/L	<0.5					---
Prothiofos	34643-46-4	0.5	µg/L	<0.5					---
Ethion	563-12-2	0.5	µg/L	<0.5					---
Carbophenothion	786-19-6	0.5	µg/L	<0.5					---
Azinphos Methyl	86-50-0	0.5	µg/L	<0.5					---
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	5	µg/L	<5					---
Toluene	108-88-3	5	µg/L	<5					---
Ethylbenzene	100-41-4	5	µg/L	<5					---
meta- & para-Xylene	108-38-3 106-42-3	5	µg/L	<5					---
Styrene	100-42-5	5	µg/L	<5					---
ortho-Xylene	95-47-6	5	µg/L	<5					---
Isopropylbenzene	98-82-8	5	µg/L	<5					---
n-Propylbenzene	103-65-1	5	µg/L	<5					---
1,3,5-Trimethylbenzene	108-67-8	5	µg/L	<5					---



Page : 17 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : OE09637

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER	Client sample ID		CAS Number	Client sampling date / time		Unit	MWB (CR14)	MWC (CR15)	DUP04	Rinsate/ Rinsate 4
	LOR	Unit		LOR	Unit					
Compound	CAS Number	LOR	Unit	CAS Number	LOR	Unit	19-MAY-2009 11:00	19-MAY-2009 11:00	18-MAY-2009 11:00	18-MAY-2009 11:00
EP074A: Monocyclic Aromatic Hydrocarbons - Continued										
sec-Butylbenzene	135-98-8	5	µg/L				<5			
1,2,4-Trimethylbenzene	95-83-6	5	µg/L				<5			
tert-Butylbenzene	98-06-6	5	µg/L				<5			
p-Isopropyltoluene	99-87-6	5	µg/L				<5			
n-Butylbenzene	104-51-8	5	µg/L				<5			
EP074B: Oxygenated Compounds										
Vinyl Acetate	108-05-4	50	µg/L				<50			
2-Butanone (MEK)	78-93-3	50	µg/L				<50			
4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L				<50			
2-Hexanone (MIBK)	591-78-6	50	µg/L				<50			
EP074C: Sulfonated Compounds										
Carbon disulfide	75-15-0	5	µg/L				<5			
EP074D: Fumigants										
2,2-Dichloropropane	594-20-7	5	µg/L				<5			
1,2-Dichloropropane	78-87-5	5	µg/L				<5			
cis-1,3-Dichloropropylene	10061-01-5	5	µg/L				<5			
trans-1,3-Dichloropropylene	10061-02-6	5	µg/L				<5			
1,2-Dibromoethane (EDB)	106-93-4	5	µg/L				<5			
EP074E: Halogenated Aliphatic Compounds										
Dichlorodifluoromethane	75-71-8	50	µg/L				<50			
Chloromethane	74-87-3	50	µg/L				<50			
Vinyl chloride	75-01-4	50	µg/L				<50			
Bromomethane	74-83-9	50	µg/L				<50			
Chloroethane	75-00-3	50	µg/L				<50			
Trichlorofluoromethane	75-69-4	50	µg/L				<50			
1,1-Dichloroethene	75-35-4	5	µg/L				<5			
Iodomethane	74-88-4	5	µg/L				<5			
trans-1,2-Dichloroethene	156-60-5	5	µg/L				<5			
1,1-Dichloroethane	75-34-3	5	µg/L				<5			
cis-1,2-Dichloroethene	156-59-2	5	µg/L				<5			
1,1,1-Trichloroethane	71-55-6	5	µg/L				<5			
1,1-Dichloropropylene	563-58-6	5	µg/L				<5			
Carbon Tetrachloride	56-23-5	5	µg/L				<5			
1,2-Dichloroethane	107-06-2	5	µg/L				<5			
Trichloroethene	79-01-6	5	µg/L				<5			
Dibromomethane	74-95-3	5	µg/L				<5			
1,1,2-Trichloroethane	79-00-5	5	µg/L				<5			
1,3-Dichloropropane	142-28-9	5	µg/L				<5			



Page : 18 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : OE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		MWB (CR14)		MWC (CR15)		DUP04		Rinsate/ Rinsate 4			
Compound	CAS Number	LOR	Unit	19-MAY-2009 11:00	EB0907913-011	19-MAY-2009 11:00	EB0907913-012	18-MAY-2009 11:00	EB0907913-013	EB0907913-014	18-MAY-2009 11:00	EB0907913-014			
EP074E: Halogenated Aliphatic Compounds - Continued															
Tetrachloroethene	127-18-4	5	µg/L		<5										
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L		<5										
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L		<5										
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L		<5										
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L		<5										
1,2,3-Trichloropropane	96-18-4	5	µg/L		<5										
Pentachloroethane	76-01-7	5	µg/L		<5										
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L		<5										
Hexachlorobutadiene	87-68-3	5	µg/L		<5										
EP074F: Halogenated Aromatic Compounds															
Chlorobenzene	108-90-7	5	µg/L		<5										
Bromobenzene	108-86-1	5	µg/L		<5										
2-Chlorotoluene	95-49-8	5	µg/L		<5										
4-Chlorotoluene	106-43-4	5	µg/L		<5										
1,3-Dichlorobenzene	541-73-1	5	µg/L		<5										
1,4-Dichlorobenzene	106-46-7	5	µg/L		<5										
1,2-Dichlorobenzene	95-50-1	5	µg/L		<5										
1,2,4-Trichlorobenzene	120-82-1	5	µg/L		<5										
1,2,3-Trichlorobenzene	87-61-6	5	µg/L		<5										
EP074G: Trihalomethanes															
Chloroform	67-66-3	5	µg/L		<5										
Bromodichloromethane	75-27-4	5	µg/L		<5										
Dibromochloromethane	124-48-1	5	µg/L		<5										
Bromoform	75-25-2	5	µg/L		<5										
EP074H: Naphthalene															
Naphthalene	91-20-3	7	µg/L		<7										
EP075(SIM)A: Phenolic Compounds															
Phenol	108-95-2	1.0	µg/L		<1.0										
2-Chlorophenol	95-57-8	1.0	µg/L		<1.0										
2-Methylphenol	95-48-7	1.0	µg/L		<1.0										
3- & 4-Methylphenol	1319-77-3	2.0	µg/L		<2.0										
2-Nitrophenol	88-75-5	1.0	µg/L		<1.0										
2,4-Dimethylphenol	105-67-9	1.0	µg/L		<1.0										
2,4-Dichlorophenol	120-83-2	1.0	µg/L		<1.0										
2,6-Dichlorophenol	87-65-0	1.0	µg/L		<1.0										
4-Chloro-3-Methylphenol	59-50-7	1.0	µg/L		<1.0										
2,4,6-Trichlorophenol	88-06-2	1.0	µg/L		<1.0										
2,4,5-Trichlorophenol	95-95-4	1.0	µg/L		<1.0										



Page : 19 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Compound	Client sample ID		Client sampling date / time		MWB (CR14)		MWC (CR15)		DUP04		Rinsate/ Rinsate 4	
	CAS Number	LOR	Unit		EB0907913-011		EB0907913-012		EB0907913-013		EB0907913-014	
EP075(SIM)A: Phenolic Compounds - Continued												
Pentachlorophenol	87-86-5	2.0	µg/L		<2.0							
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons												
Naphthalene	91-20-3	1.0	µg/L		<1.0							
Acenaphthylene	208-96-8	1.0	µg/L		<1.0							
Acenaphthene	83-32-9	1.0	µg/L		<1.0							
Fluorene	86-73-7	1.0	µg/L		<1.0							
Phenanthrene	85-01-8	1.0	µg/L		<1.0							
Anthracene	120-12-7	1.0	µg/L		<1.0							
Fluoranthene	208-44-0	1.0	µg/L		<1.0							
Pyrene	129-00-0	1.0	µg/L		<1.0							
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0							
Chrysene	218-01-9	1.0	µg/L		<1.0							
Benzo(b)fluoranthene	205-99-2	1.0	µg/L		<1.0							
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0							
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5							
Indeno(1,2,3-cd)pyrene	193-39-5	1.0	µg/L		<1.0							
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L		<1.0							
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L		<1.0							
EP080/071: Total Petroleum Hydrocarbons												
C6 - C9 Fraction	---	20	µg/L		<20		<20		40		<20	
C10 - C14 Fraction	---	50	µg/L		<50		<50		500		<50	
C15 - C28 Fraction	---	100	µg/L		200		<100		1200		<100	
C29 - C36 Fraction	---	50	µg/L		120		<50		210		<50	
EP080: BTEX												
Benzene	71-43-2	1	µg/L		<1		<1		<1		<1	
Toluene	108-88-3	2	µg/L		<2		<2		<2		<2	
Ethylbenzene	100-41-4	2	µg/L		<2		<2		<2		<2	
meta- & para-Xylene	108-38-3	2	µg/L		<2		<2		2		<2	
ortho-Xylene	95-47-6	2	µg/L		<2		<2		<2		<2	
EP066S: PCB Surrogate												
Decachlorobiphenyl	2051-24-3	0.1	%		87.8							
EP068S: Organochlorine Pesticide Surrogate												
Dibromo-DDE	21655-73-2	0.1	%		109							
EP068T: Organophosphorus Pesticide Surrogate												
DEF	78-48-8	0.1	%		107							
EP074S: VOC Surrogates												
1,2-Dichloroethane-D4	17060-07-0	0.1	%		104							

Page : 20 of 21
 Work Order : EB0907913
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537



Analytical Results

Sub-Matrix: WATER

Compound	Client sample ID			Client sampling date / time			Client sample ID		
	CAS Number	LOR	Unit	CAS Number	LOR	Unit	MWB (CR14)	MWC (CR15)	DUP04
EP074S: VOC Surrogates - Continued									
Toluene-D8	2037-26-5	0.1	%				99.0		
4-Bromofluorobenzene	460-00-4	0.1	%				96.2		
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%				39.6		
2-Chlorophenol-D4	93951-73-6	0.1	%				81.6		
2,4,6-Tribromophenol	118-79-6	0.1	%				89.1		
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%				36.3		
Anthracene-d10	1719-06-8	0.1	%				108		
4-Terphenyl-d14	1718-51-0	0.1	%				105		
EP080S: TPH(V)/BTX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%				108	105	106
Toluene-D8	2037-26-5	0.1	%				108	104	106
4-Bromofluorobenzene	460-00-4	0.1	%				106	105	107
									102



Page : 21 of 21
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)		
Compound	CAS Number	Low	High	
EP066S: PCB Surrogate				
Decachlorobiphenyl	2051-24-3	10	184	
EP068S: Organochlorine Pesticide Surrogate				
Dibromo-DDE	21655-73-2	10	136	
EP068T: Organophosphorus Pesticide Surrogate				
DEF	78-48-8	10	110	
EP074S: VOC Surrogates				
1,2-Dichloroethane-D4	17060-07-0	80	120	
Toluene-D8	2037-26-5	88	110	
4-Bromofluorobenzene	460-00-4	86	115	
EP075(SIM)S: Phenolic Compound Surrogates				
Phenol-d6	13127-88-3	10	94	
2-Chlorophenol-D4	93951-73-6	23	134	
2,4,6-Tribromophenol	118-79-6	10	123	
EP075(SIM)T: PAH Surrogates				
2-Fluorobiphenyl	321-60-8	43	116	
Anthracene-d10	1719-06-8	27	133	
4-Terphenyl-d14	1718-51-0	33	141	
EP080S: TPH(V)/BTX Surrogates				
1,2-Dichloroethane-D4	17060-07-0	80	120	
Toluene-D8	2037-26-5	88	110	
4-Bromofluorobenzene	460-00-4	86	115	



Environmental Division

QUALITY CONTROL REPORT

Work Order	: EB0907913	Page	: 1 of 15
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Klimister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ---	Telephone	: +61-7-3243 7222
Facsimile	: ---	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park	Date Samples Received	: 19-MAY-2009
C-O-C number	: ---	Issue Date	: 27-MAY-2009
Sampler	: O Kana & M McLeod	No. of samples received	: 14
Order number	: ---	No. of samples analysed	: 14
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

WORLD RECOGNISED
ACCREDITATION

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Matthew Goodwin	Senior Organic Chemist	Organics
Sarah Ashworth	Organic Chemist	Organics

Environmental Division Brisbane
Part of the ALS Laboratory Group

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company

Page
Work Order
Client
Project

: 2 of 15
: EB0907913
: SINCLAIR KNIGHT MERZ
: QE09537



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :

Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot

CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

RPD = Relative Percentage Difference

= Indicates failed QC



Page : 3 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: WATER

Sub-Matrix: WATER		RTI DL RELEASE - EHP									
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Laboratory Duplicate (DUP) Report		Recovery Limits (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 984592)											
EB0907768-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.0003	0.0001	80.1			No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	4.15	4.20	1.2			0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	0.002	0.002	0.0			No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.049	0.051	5.0			0% - 20%
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.046	0.047	3.7			No Limit
		EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0			No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.980	0.954	2.7			0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0			No Limit
EB0907768-011	Anonymous	EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.0			No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.009	0.008	0.0			No Limit
		EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0			No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0			No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 984594)											
EB0907913-003	MW03	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0			No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.004	0.005	0.0			No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.033	0.033	0.0			No Limit
		EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0			No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	0.002	0.002	0.0			No Limit
EB0907913-012	MWC (CR15)	EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0			No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.0			No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.014	0.012	0.0			No Limit
		EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0			No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0			No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 985487)											
EB0907252-001	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.0041	0.0043	4.5			0% - 20%
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.063	0.058	8.3			0% - 20%
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	61.7	61.9	0.2			0% - 20%
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.262	0.254	3.3			0% - 20%
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.348	0.338	2.8			0% - 20%



Page : 4 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER		Laboratory sample ID		Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metals by ICP-MS (QC Lot: 985487) - continued												
EB0907252-001		Anonymous	EG020A-T: Nickel									
			7440-02-0	0.001	mg/L	0.096	0.092	4.7	0% - 20%			
EB0907936-003	Anonymous	Anonymous	EG020A-T: Zinc									
			7440-66-6	0.005	mg/L	1.88	1.80	4.6	0% - 20%			
			EG020A-T: Cadmium									
			7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit			
			EG020A-T: Arsenic									
			7440-38-2	0.001	mg/L	0.002	0.002	0.0	No Limit			
			EG020A-T: Chromium									
			7440-47-3	0.001	mg/L	0.004	0.004	0.0	No Limit			
			EG020A-T: Copper									
			7440-50-8	0.001	mg/L	0.007	0.008	0.0	No Limit			
EB0907936-009	Anonymous	Anonymous	EG020A-T: Lead									
			7439-92-1	0.001	mg/L	0.008	0.008	0.0	No Limit			
			EG020A-T: Nickel									
7440-02-0	0.001	mg/L	0.003	0.003	0.0	No Limit						
EG035F: Dissolved Mercury by FIMS (QC Lot: 984591)	Anonymous	Anonymous	EG020A-T: Zinc									
			7440-66-6	0.005	mg/L	0.042	0.046	6.7	No Limit			
EB0907768-012	Anonymous	Anonymous	EG035F: Mercury									
			7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit			
EG035F: Dissolved Mercury by FIMS (QC Lot: 984593)	Anonymous	Anonymous	EG035F: Mercury									
			7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit			
EB0907913-013	Anonymous	Anonymous	EG035F: Mercury									
			7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit			
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 984931)												
EB0907913-014	Anonymous	Anonymous	EG035T: Mercury									
			7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit			
EB0907936-009	Anonymous	Anonymous	EG035T: Mercury									
			7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit			
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 989022)												
EB0907698-008	Anonymous	Anonymous	EK055G: Ammonia as N									
			7664-41-7	0.01	mg/L	0.73	0.74	0.0	0% - 20%			
EB0907913-009	Anonymous	Anonymous	EK055G: Ammonia as N									
			7664-41-7	0.01	mg/L	0.58	0.48	17.5	0% - 20%			
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 985153)												
EB0907913-003	Anonymous	Anonymous	EP074: Benzene									
			71-43-2	5	µg/L	<5	<5	0.0	No Limit			
			EP074: Toluene									
			108-88-3	5	µg/L	<5	<5	0.0	No Limit			
			EP074: Ethylbenzene									
			100-41-4	5	µg/L	<5	<5	0.0	No Limit			
			EP074: meta- & para-Xylene									
			108-38-3	5	µg/L	<5	<5	0.0	No Limit			
			EP074: Styrene									
			106-42-3	5	µg/L	<5	<5	0.0	No Limit			
			EP074: ortho-Xylene									
			100-42-5	5	µg/L	<5	<5	0.0	No Limit			
			EP074: Isopropylbenzene									
			95-47-6	5	µg/L	<5	<5	0.0	No Limit			
EB0907913-003	Anonymous	Anonymous	EP074: n-Propylbenzene									
			98-82-8	5	µg/L	<5	<5	0.0	No Limit			
			EP074: 1,3,5-Trimethylbenzene									
			103-65-1	5	µg/L	<5	<5	0.0	No Limit			
			EP074: sec-Butylbenzene									
			108-67-8	5	µg/L	<5	<5	0.0	No Limit			
			EP074: 1,2,4-Trimethylbenzene									
			135-98-8	5	µg/L	<5	<5	0.0	No Limit			
			EP074: tert-Butylbenzene									
			95-63-6	5	µg/L	<5	<5	0.0	No Limit			
EB0907913-003	Anonymous	Anonymous	EP074: p-Isopropyltoluene									
			98-06-6	5	µg/L	<5	<5	0.0	No Limit			
			EP074: n-Butylbenzene									
			99-87-6	5	µg/L	<5	<5	0.0	No Limit			
EP074B: Oxygenated Compounds (QC Lot: 985153)												
EB0907913-003	Anonymous	Anonymous	EP074: Vinyl Acetate									
			108-05-4	50	µg/L	<50	<50	0.0	No Limit			



Page : 5 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report									
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)		
EP074B: Oxygenated Compounds (QC Lot: 985153) - continued											
EB0907913-003	MW03	EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0	No Limit		
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	0.0	No Limit		
		EP074: 2-Hexanone (MEK)	591-78-6	50	µg/L	<50	<50	0.0	No Limit		
EP074C: Sulfonated Compounds (QC Lot: 985153)											
EB0907913-003	MW03	EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	0.0	No Limit		
EP074D: Fumigants (QC Lot: 985153)											
EB0907913-003	MW03	EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	0.0	No Limit		
EP074E: Halogenated Aliphatic Compounds (QC Lot: 985153)											
EB0907913-003	MW03	EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Iodomethane	74-88-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1-Dichloroethane	75-34-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: cis-1,2-Dichloroethene	156-60-2	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1,1-Trichloroethane	71-35-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1-Dichloropropylene	563-38-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Trichloroethene	79-01-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Pentachloroethane	76-01-7	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Hexachlorobutadiene	87-68-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	0.0	No Limit		
		EP074: Chloromethane	74-87-3	50	µg/L	<50	<50	0.0	No Limit		
		EP074: Vinyl chloride	75-01-4	50	µg/L	<50	<50	0.0	No Limit		
		EP074: Bromomethane	74-83-9	50	µg/L	<50	<50	0.0	No Limit		
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	0.0	No Limit		



Page : 6 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID	Method: Compound	CAS Number	LOR	Unit	Laboratory Duplicate (DUP) Report			Recovery Limits (%)
Laboratory sample ID	Original Result						Duplicate Result	RPD (%)		
EP074E: Halogenated Aliphatic Compounds (QC Lot: 985153) - continued										
EB0907913-003	MW03	EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	0.0	No Limit	
EP074F: Halogenated Aromatic Compounds (QC Lot: 985153)										
EB0907913-003	MW03	EP074: Chlorobenzene	108-90-7	5	µg/L	<5	<5	0.0	No Limit	
		EP074: Bromobenzene	108-86-1	5	µg/L	<5	<5	0.0	No Limit	
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	0.0	No Limit	
		EP074: 4-Chlorotoluene	108-43-4	5	µg/L	<5	<5	0.0	No Limit	
		EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	0.0	No Limit	
		EP074: 1,4-Dichlorobenzene	108-46-7	5	µg/L	<5	<5	0.0	No Limit	
		EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	0.0	No Limit	
		EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	<5	0.0	No Limit	
		EP074: 1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	0.0	No Limit	
		EP074G: Trihalomethanes (QC Lot: 985153)								
EB0907913-003	MW03	EP074: Chloroform	67-66-3	5	µg/L	<5	<5	0.0	No Limit	
		EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0	No Limit	
		EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	<5	0.0	No Limit	
		EP074: Bromoform	75-26-2	5	µg/L	<5	<5	0.0	No Limit	
EP074H: Naphthalene (QC Lot: 985153)										
EB0907913-003	MW03	EP074: Naphthalene	91-20-3	7	µg/L	<7	<7	0.0	No Limit	
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 985152)										
EB0907913-001	MW01	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.0	No Limit	
EB0907913-011	MWB (CR14)	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.0	No Limit	
EP080: BTEX (QC Lot: 985152)										
EB0907913-001	MW01	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit	
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit	
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit	
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit	
			106-42-3							
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit	
		EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit	
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit	
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit	
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit	
EB0907913-011	MWB (CR14)		106-42-3							
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit	



Page : 7 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report				Laboratory Control Spike (LCS) Report			
Method: Compound				Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)			
CAS Number	LOR	Unit	LCS			Low	High				
EG020F: Dissolved Metals by ICP-MS (QCLot: 984592)											
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	106	75	125			
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.100 mg/L	114	79	123			
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	113	84	128			
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	115	81	121			
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	107	83	123			
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	112	78	124			
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	114	81	130			
EG020F: Dissolved Metals by ICP-MS (QCLot: 984594)											
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	103	75	125			
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.100 mg/L	111	79	123			
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	112	84	128			
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	111	81	121			
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	103	83	123			
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	109	78	124			
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	109	81	130			
EG020F: Dissolved Metals by ICP-MS (QCLot: 987880)											
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	98.8	75	125			
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.100 mg/L	102	79	123			
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	108	84	128			
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	102	81	121			
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	100	83	123			
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	100	78	124			
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	105	81	130			
EG020T: Total Metals by ICP-MS (QCLot: 985487)											
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	95.8	74	114			
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.100 mg/L	107	74	118			
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	112	81	127			
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	108	75	119			
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	101	80	116			
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	106	75	121			
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	103	73	127			
EG035F: Dissolved Mercury by FIMS (QCLot: 984591)											
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.010 mg/L	94.6	84	120			
EG035F: Dissolved Mercury by FIMS (QCLot: 984593)											



Sub-Matrix: WATER

Sub-Matrix: WATER				Laboratory Control Spike (LCS) Report				
Method/Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Spike Concentration	Spike Recovery (%)		
						LCS	Low	High
EG035F: Dissolved Mercury by FIMS (QCLot: 984593) - continued								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.010 mg/L	90.6	84	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984931)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.0100 mg/L	101	82	122
EK055G: Ammonia as N by Discrete Analyser (QCLot: 989022)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	104	70	128
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 985208)								
EP066: Total Polychlorinated biphenyls	----	----	µg/L	<1	10 µg/L	77.4	56.7	118
EP068A: Organochlorine Pesticides (OC) (QCLot: 985207)								
EP068: alpha-BHC	319-84-6	0.5	µg/L	<0.5	5 µg/L	83.8	55	125
EP068: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	5 µg/L	84.5	51	121
EP068: beta-BHC	319-85-7	0.5	µg/L	<0.5	5 µg/L	89.2	54	126
EP068: gamma-BHC	58-89-9	0.5	µg/L	<0.5	5 µg/L	82.3	53	131
EP068: delta-BHC	319-86-8	0.5	µg/L	<0.5	5 µg/L	68.8	52	131
EP068: Heptachlor	76-44-8	0.5	µg/L	<0.5	5 µg/L	96.9	43	128
EP068: Aldrin	309-00-2	0.5	µg/L	<0.5	5 µg/L	84.9	57	126
EP068: Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	5 µg/L	83.4	57	124
EP068: trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	5 µg/L	86.1	53.4	120
EP068: alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	5 µg/L	91.3	53	131
EP068: cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	5 µg/L	85.7	52.4	120
EP068: Dieldrin	60-57-1	0.5	µg/L	<0.5	5 µg/L	88.3	51	128
EP068: 4,4'-DDE	72-55-9	0.5	µg/L	<0.5	5 µg/L	90.1	54.8	125
EP068: Endrin	72-20-8	0.5	µg/L	<0.5	5 µg/L	65.7	49.1	135
EP068: beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	5 µg/L	89.4	54	123
EP068: 4,4'-DDD	72-54-8	0.5	µg/L	<0.5	5 µg/L	86.9	54.3	129
EP068: Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	5 µg/L	89.6	54.3	127
EP068: Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	5 µg/L	# 42.8	47	136
EP068: 4,4'-DDT	50-29-3	2	µg/L	<2	----	----	----	----
EP068: Endrin ketone	53494-70-5	0.5	µg/L	<0.5	5 µg/L	74.4	40	130
EP068: Methoxychlor	72-43-5	2	µg/L	<2	----	----	----	----
		2.0	µg/L	----	5 µg/L	78.8	40	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 985207)								
EP068: Dichlorvos	62-73-7	0.5	µg/L	<0.5	5 µg/L	80.7	53.6	126
EP068: Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	5 µg/L	85.2	49.2	135
EP068: Monocrotophos	6923-22-4	2	µg/L	<2	----	----	----	----
		2.0	µg/L	----	5 µg/L	# Not Determined	17.5	100
EP068: Dimethoate	60-51-5	0.5	µg/L	<0.5	5 µg/L	65.4	51.3	125
EP068: Diazinon	333-41-5	0.5	µg/L	<0.5	5 µg/L	83.7	52	126



Page : 9 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Method: Compound				Method Blank (MIB) Report		Laboratory Control Spike (LCS) Report			
				Result	Concentration	Spike Recovery (%)	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 985207) - continued									
EP068: Chlorpyrifos-methyl	CAS Number	LOR	Unit	Result	Concentration	Spike Recovery (%)	LCS	Low	High
EP068: Parathion-methyl	5598-13-0	0.5	µg/L	<0.5	5 µg/L	77.8	---	54.6	123
	298-00-4	2	µg/L	<2	---	---	---	---	---
	2.0	2.0	µg/L	---	5 µg/L	68.6	---	50	130
EP068: Malathion	121-75-5	0.5	µg/L	<0.5	5 µg/L	80.8	---	51	129
EP068: Fenthion	55-38-9	0.5	µg/L	<0.5	5 µg/L	83.0	---	54	120
EP068: Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	5 µg/L	85.7	---	57.6	122
EP068: Parathion	56-38-2	2	µg/L	<2	---	---	---	---	---
	2.0	2.0	µg/L	---	5 µg/L	83.3	---	51.8	126
EP068: Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	5 µg/L	# 48.4	---	54.7	122
EP068: Chlorfenvinphos	470-90-6	0.5	µg/L	<0.5	5 µg/L	107	---	54.7	130
EP068: Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	5 µg/L	91.3	---	54.8	120
EP068: Fenamiphos	22224-92-6	0.5	µg/L	<0.5	5 µg/L	85.0	---	48.3	126
EP068: Prothiofos	34643-46-4	0.5	µg/L	<0.5	5 µg/L	82.9	---	53.7	121
EP068: Ethion	563-12-2	0.5	µg/L	<0.5	5 µg/L	80.8	---	54.6	130
EP068: Carbophenothion	786-19-6	0.5	µg/L	<0.5	5 µg/L	83.9	---	53.4	128
EP068: Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	5 µg/L	43.2	---	34	130
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 985153)									
EP074: Benzene	71-43-2	5	µg/L	<5	10 µg/L	93.2	---	75	122
EP074: Toluene	108-88-3	5	µg/L	<5	10 µg/L	95.5	---	71.2	124
EP074: Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	98.1	---	76	120
EP074: meta- & para-Xylene	108-38-3	5	µg/L	<5	20 µg/L	95.3	---	68	132
	106-42-3								
EP074: Styrene	100-42-5	5	µg/L	<5	10 µg/L	98.9	---	68	127
EP074: ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	95.9	---	76	122
EP074: Isopropylbenzene	98-82-8	5	µg/L	<5	10 µg/L	94.1	---	74	123
EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	10 µg/L	97.9	---	70	125
EP074: 1,3,5-Trimethylbenzene	108-67-8	5	µg/L	<5	10 µg/L	98.1	---	74	121
EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	10 µg/L	98.4	---	72	124
EP074: 1,2,4-Trimethylbenzene	95-63-6	5	µg/L	<5	10 µg/L	97.0	---	73.5	124
EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	10 µg/L	97.4	---	71.6	128
EP074: p-Isopropyltoluene	99-87-6	5	µg/L	<5	10 µg/L	98.8	---	68.3	130
EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	10 µg/L	97.5	---	67	126
EP074B: Oxygenated Compounds (QCLot: 985153)									
EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	100 µg/L	101	---	65	147
EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	69.1	---	54	130
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	100 µg/L	114	---	63	137
EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	100 µg/L	117	---	62	135
EP074C: Sulfonated Compounds (QCLot: 985153)									
EP074: Carbon disulfide	75-15-0	5	µg/L	<5	10 µg/L	75.2	---	68	135



Page : 10 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER			Laboratory Control Spike (LCS) Report					
Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Spike Concentration	Recovery Limits (%)		
						Spike Recovery (%)	Low	High
EP074D: Fumigants (QCLot: 985153)								
EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	10 µg/L	96.4	60.7	143
EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	10 µg/L	98.6	69.7	128
EP074: cis-1,3-Dichloropropylene	10061-00-5	5	µg/L	<5	20 µg/L	102	68	131
EP074: trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	20 µg/L	104	67	140
EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	10 µg/L	106	68.1	132
EP074E: Halogenated Aliphatic Compounds (QCLot: 985153)								
EP074: Dichlorodifluoromethane	75-71-8	5	µg/L	<5	100 µg/L	# 27.9	52	130
EP074: Chloromethane	74-87-3	5	µg/L	<5	100 µg/L	56.8	43.1	130
EP074: Vinyl chloride	75-01-4	5	µg/L	<5	100 µg/L	# 166	53	144
EP074: Bromomethane	74-83-9	5	µg/L	<5	100 µg/L	78.3	57.5	130
EP074: Chloroethane	75-00-3	5	µg/L	<5	100 µg/L	# 68.5	70	137
EP074: Trichlorofluoromethane	75-69-4	5	µg/L	<5	100 µg/L	68.2	64	135
EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	10 µg/L	86.2	63.9	135
EP074: Iodomethane	74-88-4	5	µg/L	<5	10 µg/L	73.4	57.2	130
EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	10 µg/L	90.6	70	128
EP074: 1,1-Dichloroethane	75-34-3	5	µg/L	<5	10 µg/L	96.1	64	136
EP074: cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	10 µg/L	101	71	128
EP074: 1,1,1-Trichloroethane	71-55-6	5	µg/L	<5	10 µg/L	96.5	68.4	135
EP074: 1,1-Dichloropropylene	563-58-6	5	µg/L	<5	10 µg/L	94.8	71.4	127
EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	10 µg/L	96.4	64	134
EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	10 µg/L	102	68	134
EP074: Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	95.6	72	127
EP074: Dibromomethane	74-95-3	5	µg/L	<5	10 µg/L	104	63.9	136
EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	10 µg/L	112	69.2	133
EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	10 µg/L	110	73.7	130
EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	98.7	73.8	132
EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	10 µg/L	104	81	123
EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	10 µg/L	116	26	130
EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	10 µg/L	89.7	51.1	130
EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	10 µg/L	108	72	133
EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	10 µg/L	111	59	148
EP074: Pentachloroethane	76-01-7	5	µg/L	<5	10 µg/L	102	68	138
EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	10 µg/L	111	52	150
EP074: Hexachlorobutadiene	87-68-3	5	µg/L	<5	10 µg/L	89.2	62	142
EP074F: Halogenated Aromatic Compounds (QCLot: 985153)								
EP074: Chlorobenzene	108-90-7	5	µg/L	<5	10 µg/L	96.9	77	120
EP074: Bromobenzene	108-86-1	5	µg/L	<5	10 µg/L	101	76	122
EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	10 µg/L	96.2	75.3	124
EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	10 µg/L	100	76	120



Page : 11 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report					Laboratory Control Spike (LCS) Report				
Method: Compound				Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)					
CAS Number	LOR	Unit	LCS			Low	High						
EP074F: Halogenated Aromatic Compounds (QCLot: 985153) - continued													
EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	10 µg/L	100		75.2	120				
EP074: 1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	10 µg/L	95.6		76.1	119				
EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	10 µg/L	99.0		77.7	118				
EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	10 µg/L	92.1		68.3	128				
EP074: 1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	10 µg/L	93.0		75	125				
EP074G: Trihalomethanes (QCLot: 985153)													
EP074: Chloroform	67-66-3	5	µg/L	<5	10 µg/L	98.8		71.1	127				
EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	102		68	132				
EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	10 µg/L	115		69	130				
EP074: Bromoform	75-25-2	5	µg/L	<5	10 µg/L	110		62	137				
EP074H: Naphthalene (QCLot: 985153)													
EP074: Naphthalene	91-20-3	7	µg/L	<7	10 µg/L	91.6		83.1	119				
EP075(SIM)A: Phenolic Compounds (QCLot: 985209)													
EP075(SIM): Phenol	108-95-2	1	µg/L	---	5 µg/L	29.5		24	70				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 2-Chlorophenol	95-57-8	1	µg/L	---	5 µg/L	60.5		57	105				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 2-Methylphenol	95-48-7	1	µg/L	---	5 µg/L	57.9		51	96				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	2	µg/L	---	10 µg/L	55.2		45	94				
	2.0		µg/L	<2.0	---	---		---	---				
EP075(SIM): 2-Nitrophenol	88-75-5	1	µg/L	---	5 µg/L	66.7		48	132				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 2,4-Dimethylphenol	105-67-9	1	µg/L	---	5 µg/L	66.7		44	112				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 2,4-Dichlorophenol	120-83-2	1	µg/L	---	5 µg/L	81.8		60	114				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 2,6-Dichlorophenol	87-65-0	1	µg/L	---	5 µg/L	# 58.4		59	115				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	1	µg/L	---	5 µg/L	69.6		60	117				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	1	µg/L	---	5 µg/L	66.8		59	123				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	1	µg/L	---	5 µg/L	64.9		59	123				
	1.0		µg/L	<1.0	---	---		---	---				
EP075(SIM): Pentachlorophenol	87-86-5	2	µg/L	---	10 µg/L	100		22.1	130				
	2.0		µg/L	<2.0	---	---		---	---				
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 985209)													



Page : 12 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report		Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Low	High	
Method: Compound									
CAS Number	LOR	Unit	EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 985209) - continued						
91-20-3	1	µg/L							
EP075(SIM): Naphthalene	1.0	µg/L	5 µg/L 66.2 46 111						
208-96-8	1	µg/L							
EP075(SIM): Acenaphthylene	1.0	µg/L	5 µg/L 63.8 51 114						
83-32-9	1	µg/L							
EP075(SIM): Acenaphthene	1.0	µg/L	5 µg/L 65.8 50 114						
86-73-7	1	µg/L							
EP075(SIM): Fluorene	1.0	µg/L	5 µg/L 63.2 55 118						
85-01-8	1	µg/L							
EP075(SIM): Phenanthrene	1.0	µg/L	5 µg/L 83.1 54 110						
120-12-7	1	µg/L							
EP075(SIM): Anthracene	1.0	µg/L	5 µg/L 79.4 49 117						
206-44-0	1	µg/L							
EP075(SIM): Fluoranthene	1.0	µg/L	5 µg/L 79.1 51 117						
129-00-0	1	µg/L							
EP075(SIM): Pyrene	1.0	µg/L	5 µg/L 80.1 51 117						
56-55-3	1	µg/L							
EP075(SIM): Benz(a)anthracene	1.0	µg/L	5 µg/L 86.8 53 120						
218-01-9	1	µg/L							
EP075(SIM): Chrysene	1.0	µg/L	5 µg/L 74.9 48 114						
205-99-2	1	µg/L							
EP075(SIM): Benzo(b)fluoranthene	1.0	µg/L	5 µg/L 78.8 48 130						
207-08-9	1	µg/L							
EP075(SIM): Benzo(k)fluoranthene	1.0	µg/L	5 µg/L 65.2 43 126						
50-32-8	0.5	µg/L							
EP075(SIM): Benzo(a)pyrene	1	µg/L	5 µg/L 69.0 44 120						
193-39-5	1	µg/L							
EP075(SIM): Indeno(1,2,3.cd)pyrene	1.0	µg/L	5 µg/L 71.2 45 129						
53-70-3	1	µg/L							
EP075(SIM): Dibenzo(a,h)anthracene	1.0	µg/L	5 µg/L 72.7 47 131						
191-24-2	1	µg/L							
EP075(SIM): Benzo(g,h,i)perylene	1.0	µg/L	5 µg/L 66.9 42 126						
EP080/071: Total Petroleum Hydrocarbons (QCLot: 985152)									
EP080: C6 - C9 Fraction	20	µg/L	<20 160 µg/L 99.6 73 135						
EP080/071: Total Petroleum Hydrocarbons (QCLot: 985206)									
EP071: C10 - C14 Fraction	50	µg/L	<50 600 µg/L 60.6 49 110						
EP071: C15 - C28 Fraction	100	µg/L	<100 1020 µg/L 77.0 58 130						
EP071: C29 - C36 Fraction	50	µg/L	<50 100 µg/L 100 µg/L 77.0 58 130						
EP080: BTEX (QCLot: 985152)									
EP080: Benzene	1	µg/L	<1 10 µg/L 96.4 77.6 122						



Page : 13 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report					Laboratory Control Spike (LCS) Report			
Method: Compound		CAS Number	LOR	Unit	Spike Concentration		Spike Recovery (%)		Recovery Limits (%)			
									Low	High		
EP080: BTEX (QCLot: 985152) - continued												
EP080: Toluene		108-88-3	2	µg/L			10 µg/L	99.6	74	122		
EP080: Ethylbenzene		100-41-4	2	µg/L			10 µg/L	99.0	73	126		
EP080: meta- & para-Xylene		108-98-3	2	µg/L			20 µg/L	99.0	70.4	129		
		106-42-3										
EP080: ortho-Xylene		95-47-6	2	µg/L			10 µg/L	99.3	74.3	126		



Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: WATER

Sub-Matrix: WATER		Matrix Spike (MS) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)
					MS	Low	
EG020F: Dissolved Metals by ICP-MS (QCLot: 984592)							
EB0907768-002	Anonymous	EG020A-F: Arsenic	7440-38-2	.1 mg/L	# Not Determined	70	130
		EG020A-F: Cadmium	7440-43-9	0.100 mg/L	107	70	130
		EG020A-F: Chromium	7440-47-3	0.100 mg/L	106	70	130
		EG020A-F: Copper	7440-50-8	.15 mg/L	104	70	130
		EG020A-F: Lead	7439-92-1	0.100 mg/L	101	70	130
		EG020A-F: Nickel	7440-02-0	0.100 mg/L	106	70	130
		EG020A-F: Zinc	7440-66-6	.2 mg/L	115	70	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 984594)							
EB0907954-004	Anonymous	EG020A-F: Arsenic	7440-38-2	0.100 mg/L	104	70	130
		EG020A-F: Cadmium	7440-43-9	0.100 mg/L	107	70	130
		EG020A-F: Chromium	7440-47-3	0.100 mg/L	98.7	70	130
		EG020A-F: Copper	7440-50-8	.15 mg/L	99.7	70	130
		EG020A-F: Lead	7439-92-1	0.100 mg/L	101	70	130
		EG020A-F: Nickel	7440-02-0	0.100 mg/L	99.1	70	130
		EG020A-F: Zinc	7440-66-6	.2 mg/L	104	70	130
EG020T: Total Metals by ICP-MS (QCLot: 985487)							
EB0907698-008	Anonymous	EG020A-T: Arsenic	7440-38-2	1.000 mg/L	100	70	130
		EG020A-T: Cadmium	7440-43-9	0.500 mg/L	98.2	70	130
		EG020A-T: Chromium	7440-47-3	1.000 mg/L	97.8	70	130
		EG020A-T: Copper	7440-50-8	1.000 mg/L	96.1	70	130
		EG020A-T: Lead	7439-92-1	1.000 mg/L	91.0	70	130
		EG020A-T: Nickel	7440-02-0	1.000 mg/L	96.6	70	130
		EG020A-T: Zinc	7440-66-6	1.000 mg/L	94.0	70	130
EG035F: Dissolved Mercury by FIMS (QCLot: 984591)							
EB0907768-002	Anonymous	EG035F: Mercury	7439-97-6	0.010 mg/L	78.8	70	130
EG035F: Dissolved Mercury by FIMS (QCLot: 984593)							
EB0907913-004	MW04	EG035F: Mercury	7439-97-6	0.010 mg/L	73.8	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984931)							
EB0907936-001	Anonymous	EG035T: Mercury	7439-97-6	0.010 mg/L	94.0	70	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 989022)							
EB0907910-003	Anonymous	EK055G: Ammonia as N	7664-41-7	0.4 mg/L	# Not Determined	70	130
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 985153)							
EB0907913-004	MW04	EP074: Benzene	71-43-2	10 µg/L	102	70	130
		EP074: Toluene	108-88-3	10 µg/L	98.7	70	130



Page : 15 of 15
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER			Matrix Spike (MS) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Recovery Limits (%)		
					Spike Recovery (%)	Low	High
EP074E: Halogenated Aliphatic Compounds (QCLot: 985153)							
EB0907913-004	MW04	EP074: 1,1-Dichloroethene	75-35-4	10 µg/L	126	70	130
		EP074: Trichloroethene	79-01-6	10 µg/L	99.8	70	130
EP074F: Halogenated Aromatic Compounds (QCLot: 985153)							
EB0907913-004	MW04	EP074: Chlorobenzene	108-90-7	10 µg/L	101	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 985152)							
EB0907913-002	MW02	EP080: C6 - C9 Fraction	----	140 µg/L	93.0	70	130
EP080: BTEX (QCLot: 985152)							
EB0907913-002	MW02	EP080: Benzene	71-43-2	10 µg/L	114	70	130
		EP080: Toluene	108-88-3	10 µg/L	106	70	130



Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: EB0907913	Page	: 1 of 12
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Klimister
Address	: 32 CORDELLIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: -----	Telephone	: +61-7-3243 7222
Facsimile	: -----	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park	Date Samples Received	: 19-MAY-2009
C-O-C number	: -----	Issue Date	: 27-MAY-2009
Sampler	: O Kana & M McLeod	No. of samples received	: 14
Order number	: -----	No. of samples analysed	: 14
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Page : 2 of 12
 Work Order : EB0907913
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537



Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: WATER

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation		Analysis	
Container / Client Sample ID(s)	Date extracted		Due for extraction	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS						
Amber Glass Bottle - Unpreserved						
MW08		19-MAY-2009	---	---	20-MAY-2009	15-NOV-2009
Clear Plastic Bottle - Filtered; Lab-acidified						
MW01,	MW02,					
MW03,	MW04,	18-MAY-2009	---	---	20-MAY-2009	14-NOV-2009
MW06,	MW07,					
DUP04						
Clear Plastic Bottle - Filtered; Lab-acidified						
MW05,	MW09,	19-MAY-2009	---	---	20-MAY-2009	15-NOV-2009
MWA (CR13),	MWB (CR14),					
MWC (CR15)						
EG020T: Total Metals by ICP-MS						
Clear Plastic Bottle - Unfiltered; Lab-acidified						
Rinsate/ Rinsate 4		18-MAY-2009	21-MAY-2009	14-NOV-2009	21-MAY-2009	14-NOV-2009
EG035F: Dissolved Mercury by FIMS						
Amber Glass Bottle - Unpreserved						
MW08		19-MAY-2009	---	---	20-MAY-2009	02-JUN-2009
Clear Plastic Bottle - Filtered; Lab-acidified						
MW01,	MW02,	18-MAY-2009	---	---	20-MAY-2009	15-JUN-2009
MW03,	MW04,					
MW06,	MW07,					
DUP04						
Clear Plastic Bottle - Filtered; Lab-acidified						
MW05,	MW09,	19-MAY-2009	---	---	20-MAY-2009	16-JUN-2009
MWA (CR13),	MWB (CR14),					
MWC (CR15)						
EG035T: Total Recoverable Mercury by FIMS						
Clear Plastic Bottle - Unfiltered; Lab-acidified						
Rinsate/ Rinsate 4		18-MAY-2009	---	---	21-MAY-2009	15-JUN-2009



Page : 3 of 12
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

13-054

Matrix: WATER					Evaluation: * = Holding time breach ; ✓ = Within holding time.			
Method	Sample Date	Extraction / Preparation		Analysis				
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EK055C: Ammonia as N by Discrete Analyser								
Clear Plastic Bottle - Sulphuric Acid MW01, MW03, MW06,	18-MAY-2009	---	---	---	26-MAY-2009	15-JUN-2009	✓	
MW02, MW04, MW07								
MW08, MW05 (CR14)								
Clear Plastic Bottle - Sulphuric Acid MW05, MW09,	19-MAY-2009	---	---	---	26-MAY-2009	16-JUN-2009	✓	
EP066: Polychlorinated Biphenyls (PCB)								
Amber Glass Bottle - Unpreserved MW03, MW06,	18-MAY-2009	21-MAY-2009	25-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
MW04, MW07								
MW09,								
Amber Glass Bottle - Unpreserved MW05, MW06 (CR14)	19-MAY-2009	21-MAY-2009	26-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
Amber Glass Bottle - Unpreserved MW08	19-MAY-2009	22-MAY-2009	26-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
EP068A: Organochlorine Pesticides (OC)								
Amber Glass Bottle - Unpreserved MW03, MW06,	18-MAY-2009	21-MAY-2009	25-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
MW04, MW07								
MW09,								
Amber Glass Bottle - Unpreserved MW05, MW06 (CR14)	19-MAY-2009	21-MAY-2009	26-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
Amber Glass Bottle - Unpreserved MW08	19-MAY-2009	22-MAY-2009	26-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
EP068B: Organophosphorus Pesticides (OP)								
Amber Glass Bottle - Unpreserved MW03, MW06,	18-MAY-2009	21-MAY-2009	25-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
MW04, MW07								
MW09,								
Amber Glass Bottle - Unpreserved MW05, MW06 (CR14)	19-MAY-2009	21-MAY-2009	26-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
Amber Glass Bottle - Unpreserved MW08	19-MAY-2009	22-MAY-2009	26-MAY-2009	✓	23-MAY-2009	01-JUL-2009	✓	
EP074A: Monocyclic Aromatic Hydrocarbons								
Amber VOC Vial - HCl or NaHSO4 MW03, MW06,	18-MAY-2009	---	---	---	21-MAY-2009	01-JUN-2009	✓	
MW04, MW07								
MW08, MW05 (CR14)								
Amber VOC Vial - HCl or NaHSO4 MW05, MW09,	19-MAY-2009	---	---	---	21-MAY-2009	02-JUN-2009	✓	



Page : 4 of 12
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Matrix: WATER

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation		Analysis	
Container / Client Sample ID(s)			Date extracted	Due for extraction	Date analysed	Due for analysis
EP074B: Oxygenated Compounds						
Amber VOC Vial - HCl or NaHSO4		18-MAY-2009	---	---	21-MAY-2009	01-JUN-2009
MW03,	MW06,				---	✓
Amber VOC Vial - HCl or NaHSO4		19-MAY-2009	---	---	21-MAY-2009	02-JUN-2009
MW05,	MW09,				---	✓
EP074C: Sulfonated Compounds						
Amber VOC Vial - HCl or NaHSO4		18-MAY-2009	---	---	21-MAY-2009	01-JUN-2009
MW03,	MW06,				---	✓
Amber VOC Vial - HCl or NaHSO4		19-MAY-2009	---	---	21-MAY-2009	02-JUN-2009
MW05,	MW09,				---	✓
EP074D: Fumigants						
Amber VOC Vial - HCl or NaHSO4		18-MAY-2009	---	---	21-MAY-2009	01-JUN-2009
MW03,	MW06,				---	✓
Amber VOC Vial - HCl or NaHSO4		19-MAY-2009	---	---	21-MAY-2009	02-JUN-2009
MW05,	MW09,				---	✓
EP074E: Halogenated Aliphatic Compounds						
Amber VOC Vial - HCl or NaHSO4		18-MAY-2009	---	---	21-MAY-2009	01-JUN-2009
MW03,	MW06,				---	✓
Amber VOC Vial - HCl or NaHSO4		19-MAY-2009	---	---	21-MAY-2009	02-JUN-2009
MW05,	MW09,				---	✓
EP074F: Halogenated Aromatic Compounds						
Amber VOC Vial - HCl or NaHSO4		18-MAY-2009	---	---	21-MAY-2009	01-JUN-2009
MW03,	MW06,				---	✓
Amber VOC Vial - HCl or NaHSO4		19-MAY-2009	---	---	21-MAY-2009	02-JUN-2009
MW05,	MW09,				---	✓
EP074G: Trihalomethanes						
Amber VOC Vial - HCl or NaHSO4		18-MAY-2009	---	---	21-MAY-2009	01-JUN-2009
MW03,	MW06,				---	✓
Amber VOC Vial - HCl or NaHSO4		19-MAY-2009	---	---	21-MAY-2009	02-JUN-2009
MW05,	MW09,				---	✓
Amber VOC Vial - HCl or NaHSO4		18-MAY-2009	---	---	21-MAY-2009	01-JUN-2009
MW03,	MW06,				---	✓
Amber VOC Vial - HCl or NaHSO4		19-MAY-2009	---	---	21-MAY-2009	02-JUN-2009
MW05,	MW09,				---	✓

Page : 5 of 12
 Work Order : EB0907913
 Client : SINCLAIR KNIGHT MERZ
 Project : QEO9537



Matrix: WATER

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation		Analysis	
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Due for analysis
EP074H: Naphthalene						
Amber VOC Vial - HCl or NaHSO4	MW03, MW06,	18-MAY-2009	---	---	---	01-JUN-2009
Amber VOC Vial - HCl or NaHSO4	MW05, MWB (CR14)	19-MAY-2009	---	---	---	02-JUN-2009
EP075(SIM)A: Phenolic Compounds						
Amber Glass Bottle - Unpreserved	MW03, MW06,	18-MAY-2009	21-MAY-2009	25-MAY-2009	✓	01-JUL-2009
Amber Glass Bottle - Unpreserved	MW05, MWB (CR14)	19-MAY-2009	21-MAY-2009	26-MAY-2009	✓	01-JUL-2009
Amber Glass Bottle - Unpreserved	MW08	19-MAY-2009	22-MAY-2009	26-MAY-2009	✓	01-JUL-2009
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons						
Amber Glass Bottle - Unpreserved	MW03, MW06,	19-MAY-2009	21-MAY-2009	25-MAY-2009	✓	01-JUL-2009
Amber Glass Bottle - Unpreserved	MW05, MWB (CR14)	19-MAY-2009	21-MAY-2009	26-MAY-2009	✓	01-JUL-2009
Amber Glass Bottle - Unpreserved	MW08	19-MAY-2009	22-MAY-2009	26-MAY-2009	✓	01-JUL-2009



Page : 6 of 12
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Matrix: WATER

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation		Evaluation	Analysis	
Container / Client Sample ID(s)	Date extracted		Due for extraction	Date analysed		Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved							
MW01, MW03, MW06, DUP04	MW02, MW04, MW07,	18-MAY-2009	21-MAY-2009	25-MAY-2009	✓	22-MAY-2009	01-JUL-2009
Amber Glass Bottle - Unpreserved							
Rinsate/ Rinsate 4		18-MAY-2009	22-MAY-2009	25-MAY-2009	✓	22-MAY-2009	01-JUL-2009
Amber Glass Bottle - Unpreserved							
MW05, MWA (CR13), MWB (CR14), MWC (CR15)	MW09, MWB (CR14),	19-MAY-2009	21-MAY-2009	26-MAY-2009	✓	22-MAY-2009	01-JUL-2009
Amber Glass Bottle - Unpreserved							
MW08		19-MAY-2009	22-MAY-2009	26-MAY-2009	✓	22-MAY-2009	01-JUL-2009
Amber VOC Vial - HCl or NaHSO4							
MW01, MW03, MW06, DUP04,	MW02, MW04, MW07, Rinsate/ Rinsate 4	18-MAY-2009	--	--	---	21-MAY-2009	01-JUN-2009
Amber VOC Vial - HCl or NaHSO4							
MW05, MW09, MWB (CR14), MWC (CR15)	MW08, MWA (CR13), MWC (CR15)	19-MAY-2009	--	--	---	21-MAY-2009	02-JUN-2009
EP080: BTEX							
Amber VOC Vial - HCl or NaHSO4							
MW01, MW03, MW06, DUP04,	MW02, MW04, MW07, Rinsate/ Rinsate 4	18-MAY-2009	--	--	---	21-MAY-2009	01-JUN-2009
Amber VOC Vial - HCl or NaHSO4							
MW05, MW09, MWB (CR14), MWC (CR15)	MW08, MWA (CR13), MWC (CR15)	19-MAY-2009	--	--	---	21-MAY-2009	02-JUN-2009



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(when) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: WATER

Evaluation: * = Quality Control frequency not within specification; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Method	Count		Actual	Rate (%)		Evaluation	Quality Control Specification
Analytical Methods			QC	Regular		Expected			
Laboratory Duplicates (DUP)									
Ammonia as N by Discrete analyser		EK055G	2	12	16.7	10.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS		EG035F	4	38	10.5	10.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A		EG020A-F	4	37	10.8	10.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS		EG035T	2	20	10.0	10.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A		EG020A-T	2	19	10.5	10.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX		EP080	2	20	10.0	10.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds		EP074	1	8	12.5	10.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)									
Ammonia as N by Discrete analyser		EK055G	1	12	8.3	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS		EG035F	2	38	5.3	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A		EG020A-F	3	38	7.9	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)		EP075(SIM)	1	14	7.1	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Pesticides		EP068	1	11	9.1	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)		EP066	1	11	9.1	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS		EG035T	1	20	5.0	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A		EG020A-T	1	19	5.3	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction		EP071	1	20	5.0	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX		EP080	1	20	5.0	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds		EP074	1	8	12.5	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)									
Ammonia as N by Discrete analyser		EK055G	1	12	8.3	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS		EG035F	2	38	5.3	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A		EG020A-F	3	38	7.9	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)		EP075(SIM)	1	14	7.1	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Pesticides		EP068	1	11	9.1	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)		EP066	1	11	9.1	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS		EG035T	1	20	5.0	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A		EG020A-T	1	19	5.3	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction		EP071	1	20	5.0	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX		EP080	1	20	5.0	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds		EP074	1	8	12.5	5.0	✓	NEPM 1999	Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)									
Ammonia as N by Discrete analyser		EK055G	1	12	8.3	5.0	✓	ALS QCS3	requirement
Dissolved Mercury by FIMS		EG035F	2	38	5.3	5.0	✓	ALS QCS3	requirement
Dissolved Metals by ICP-MS - Suite A		EG020A-F	2	37	5.4	5.0	✓	ALS QCS3	requirement



Page : 8 of 12
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Matrix: WATER

Evaluation: * = Quality Control frequency not within specification : ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification	
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS) - Continued							
Total Mercury by FIMS	EG035T	1	20	5.0	5.0	✓	ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.3	5.0	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	ALS QCS3 requirement
Volatile Organic Compounds	EP004	1	8	12.5	5.0	✓	ALS QCS3 requirement



Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Total Mercury by FIMS	EG035T	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Ammonia as N by Discrete analyser	EK055G	WATER	APHA 21st ed., 4500-NH ₃ G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Polychlorinated Biphenyls (PCB)	EP066	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Pesticides	EP068	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Volatile Organic Compounds	EP074	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)



Page : 10 of 12
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Methods		Method	Matrix	Method Descriptions
TPH Volatiles/BTEX		EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Preparation Methods		Method	Matrix	Method Descriptions
Digestion for Total Recoverable Metals		EN25	WATER	USEPA SW846-3005 Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Separatory Funnel Extraction of Liquids		ORG14	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.



Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWJEN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: WATER

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP068A: Organochlorine Pesticides (OC)	1128581-008	---	Endosulfan sulfate	1031-07-8	42.8 %	47-138%	Recovery less than lower control limit
EP068B: Organophosphorus Pesticides (OP)	1128581-008	---	Monocrotophos	6923-22-4	Not Determined	---	Standard recovery not determined, result less than LOR
EP068B: Organophosphorus Pesticides (OP)	1128581-008	---	Phosphorus-ethyl	23505-41-1	48.4 %	54.7-122%	Recovery less than lower control limit
EP074E: Halogenated Aliphatic Compounds	1128525-008	---	Dichlorodifluoromethane	75-71-8	27.9 %	52-130%	Recovery less than lower control limit
EP074E: Halogenated Aliphatic Compounds	1128525-008	---	Vinyl chloride	75-01-4	166 %	53-144%	Recovery greater than upper control limit
EP074E: Halogenated Aliphatic Compounds	1128525-008	---	Chloroethane	75-00-3	68.5 %	70-137%	Recovery less than lower control limit
EP075(SIM)A: Phenolic Compounds	1128581-015	---	2,6-Dichlorophenol	87-65-0	58.4 %	59-115%	Recovery less than lower control limit
Matrix Spike (MS) Recoveries							
EG020F: Dissolved Metals by ICP-MS	EB0907768-002	Anonymous	Arsenic	7440-38-2	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.
EK055G: Ammonia as N by Discrete Analyser	EB0907910-003	Anonymous	Ammonia as N	7664-41-7	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Duplicate outliers occur.

Regular Sample Surrogates

Sub-Matrix: WATER

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075(SIM)T: PAH Surrogates	EB0907913-004	MW04	2-Fluorobiphenyl	321-60-8	33.7 %	43-116 %	Recovery less than lower data quality objective

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.



Page : 12 of 12
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.

RTI DL RELEASE - EHP



Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EB0907913**

Client : **SINCLAIR KNIGHT MERZ**
Contact : **ONA KANAS**
Address : **32 CORDELIA STREET
SOUTH BRISBANE QLD, AUSTRALIA
4101**

Laboratory : **Environmental Division Brisbane**
Contact : **Tim Kilmister**
Address : **32 Shand Street Stafford QLD Australia
4053**

E-mail : **okanas@skm.com.au**
Telephone : **----**
Facsimile : **----**

E-mail : **Services.Brisbane@alsenviro.com**
Telephone : **+61-7-3243 7222**
Facsimile : **+61-7-3243 7218**

Project : **QE09537**
Order number : **----**
C-O-C number : **----**
Site : **Cronulla Park**
Sampler : **O Kana & M McLeod**

Page : **1 of 3**
Quote number : **ES2009SINKNI0322 (EN/003/09)**
QC Level : **NEPM 1999 Schedule B(3) and ALS
QCS3 requirement**

Dates

Date Samples Received : **19-MAY-2009**
Client Requested Due Date : **26-MAY-2009**

Issue Date : **20-MAY-2009 16:46**
Scheduled Reporting Date : **27-MAY-2009**

Delivery Details

Mode of Delivery : **Client Drop off**
No. of coolers/boxes : **3 MEDIUM**
Security Seal : **Intact.**

Temperature : **20.0, 18.0, 19.4°C**
No. of samples received : **14**
No. of samples analysed : **14**

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Requested Deliverables
- Sample containers do not comply to pretreatment / preservation standards (AS, APHA, USEPA). Please refer to the Sample Container(s)/Preservation Non-Compliance Log at the end of this report for details.
- Samples submitted for dissolved metals analysis should be acidified with nitric acid, following field filtration. Additional charges of up to \$5.00 will apply to each sample requiring filtration and preservation upon receipt by the laboratory.
- **Sample containers do not comply to pretreatment / preservation standards (AS, APHA, USEPA). Please refer to the Sample Container(s)/Preservation Non-Compliance Log at the end of this report for details.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Maggie Kahi.
- Analytical work for this work order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of work order.



Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

Method Client sample ID	Sample Container Received	Preferred Sample Container for Analysis
EG020A-F : Dissolved Metals by ICP-MS - Suite A		
MW08	- Amber Glass Bottle - Unpreserved	- Clear Plastic Bottle - Nitric Acid; Filtered
EG035F : Dissolved Mercury by FIMS		
MW08	- Amber Glass Bottle - Unpreserved	- Clear Plastic Bottle - Nitric Acid; Filtered

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Matrix: WATER

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EP074 (water) Volatile Organic Compounds	WATER - W-05 TPH/BTEX/8 Metals	WATER - W-05T TPH/BTEX/8 Metals (Total)	WATER - W-19 TPH/BTX/P/Ph/OC/OP/PCB/8 metals
EB0907913-001	18-MAY-2009 11:00	MW01	✓	✓	✓		
EB0907913-002	18-MAY-2009 11:00	MW02	✓	✓	✓		
EB0907913-003	18-MAY-2009 11:00	MW03	✓	✓			✓
EB0907913-004	18-MAY-2009 11:00	MW04	✓	✓			✓
EB0907913-005	19-MAY-2009 11:00	MW05	✓	✓			✓
EB0907913-006	18-MAY-2009 11:00	MW06	✓	✓			✓
EB0907913-007	18-MAY-2009 11:00	MW07	✓	✓			✓
EB0907913-008	19-MAY-2009 11:00	MW08	✓	✓			✓
EB0907913-009	19-MAY-2009 11:00	MW09	✓	✓			✓
EB0907913-010	19-MAY-2009 11:00	MWA (CR13)			✓		
EB0907913-011	19-MAY-2009 11:00	MWB (CR14)	✓	✓			✓
EB0907913-012	19-MAY-2009 11:00	MWC (CR15)			✓		
EB0907913-013	18-MAY-2009 11:00	DUP04			✓		
EB0907913-014	18-MAY-2009 11:00	Rinsate/ Rinsate 4				✓	

Issue Date : 20-MAY-2009 16:46
Page : 3 of 3
Work Order : EB0907913
Client : SINCLAIR KNIGHT MERZ



Requested Deliverables

MR JEREMY WICKS

- *AU Certificate of Analysis - NATA (COA)	Email	jwicks@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jwicks@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jwicks@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	jwicks@skm.com.au
- A4 - AU Tax Invoice (INV)	Email	jwicks@skm.com.au
- Default - Chain of Custody (COC)	Email	jwicks@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	jwicks@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	jwicks@skm.com.au
- EDI Format - XTab (XTAB)	Email	jwicks@skm.com.au

ONA KANAS

- *AU Certificate of Analysis - NATA (COA)	Email	okanas@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	okanas@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	okanas@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	okanas@skm.com.au
- Default - Chain of Custody (COC)	Email	okanas@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	okanas@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	okanas@skm.com.au
- EDI Format - XTab (XTAB)	Email	okanas@skm.com.au

RTI DL RELEASE - EIP



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: EB0907967	Page	: 1 of 12
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ----	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 19-MAY-2009
C-O-C number	: ----	Issue Date	: 27-MAY-2009
Sampler	: O KANAS	No. of samples received	: 21
Site	: Cronulla Park	No. of samples analysed	: 12
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Matthew Goodwin	Senior Organic Chemist	Organics
Sarah Ashworth	Organic Chemist	Organics

Environmental Division Brisbane
Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company

Page : 2 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

- EG005T (Total Metals): Sample EB0907724-015 shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- EG005T (Total Metals): Sample EB0907724-016 shows poor matrix spike recovery due to matrix interference. Confirmed by visual inspection.
- EG005T (Total Metals): Sample EB0907953-002 shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- Pesticides: Poor matrix spike recovery for sample TP5 0.2-0.3 due to matrix interference. Confirmed by re-analysis.



Page : 3 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: SOIL		Client sample ID		Client sampling date / time		LOR		Unit		TP1 0.2-0.3	TP2 0.2-0.3	TP3 0.2-0.3	TP4 0.2-0.3	TP5 0.2-0.3
Compound		CAS Number	LOI	CAS Number		LOR		Unit		15-MAY-2009 11:00	15-MAY-2009 11:00	15-MAY-2009 11:00	15-MAY-2009 11:00	15-MAY-2009 11:00
EA055: Moisture Content		---	1.0	---		---		---		15.6	17.8	15.7	19.1	10.5
^ Moisture Content (dried @ 103°C)		---		---		---		---		---	---	---	---	---
EG005T: Total Metals by ICP-AES		---		---		---		---		---	---	---	---	---
Arsenic	7440-38-2	5	mg/kg	5	mg/kg	5	mg/kg	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	1	mg/kg	1	mg/kg	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	13	mg/kg	5	mg/kg	5	mg/kg	13	5	5	8	6
Copper	7440-50-8	5	mg/kg	5	mg/kg	5	mg/kg	5	mg/kg	<5	<5	<5	<5	<5
Lead	7439-92-1	21	mg/kg	21	mg/kg	5	mg/kg	5	mg/kg	21	<5	<5	<5	<5
Nickel	7440-02-0	2	mg/kg	2	mg/kg	2	mg/kg	2	mg/kg	<2	<2	<2	<2	<2
Zinc	7440-66-6	5	mg/kg	5	mg/kg	5	mg/kg	5	mg/kg	<5	<5	<5	<5	<5
EG035T: Total Recoverable Mercury by FIMS		---		---		---		---		---	---	---	---	---
Mercury	7439-97-6	0.1	mg/kg	0.1	mg/kg	0.1	mg/kg	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)		---		---		---		---		---	---	---	---	---
Total Polychlorinated biphenyls	---	---	0.10	0.10	mg/kg	---	---	---	---	---	---	---	---	---
EP068A: Organochlorine Pesticides (OC)		---		---		---		---		---	---	---	---	---
alpha-BHC	319-84-6	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
4,4'-DDE	72-55-9	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	0.2	mg/kg	0.2	mg/kg	0.2	mg/kg	---	---	---	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	0.2	mg/kg	0.2	mg/kg	0.2	mg/kg	---	---	---	<0.2	<0.2
EP068B: Organophosphorus Pesticides (OP)		---		---		---		---		---	---	---	---	---
Dichlorvos	62-73-7	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	0.05	mg/kg	---	---	---	<0.05	<0.05



Page : 4 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: SOIL

Sub-Matrix: SOIL		Client sample ID		Client sampling date / time		CAS Number		LOR		Unit		TP1 0.2-0.3		TP2 0.2-0.3		TP3 0.2-0.3		TP4 0.2-0.3		TP5 0.2-0.3	
												15-MAY-2009 11:00		15-MAY-2009 11:00		15-MAY-2009 11:00		15-MAY-2009 11:00		15-MAY-2009 11:00	
Compound												EB0907967-002		EB0907967-003		EB0907967-005		EB0907967-007		EB0907967-009	
EP068B: Organophosphorus Pesticides (OP) - Continued																					
Demeton-S-methyl	919-86-8	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Monocrotophos	6923-22-4	0.2	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Dimethoate	60-51-5	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Diazinon	333-41-5	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Parathion-methyl	298-00-0	0.2	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Malathion	121-75-5	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Fenthion	55-38-9	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chlorpyrifos	2921-88-2	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Parathion	56-38-2	0.2	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chlorfenvinphos	470-90-6	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Fenamiphos	22224-92-6	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Prothiofos	34843-46-4	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Ethion	563-12-2	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Carbophenothion	786-19-6	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Azinphos Methyl	86-50-0	0.05	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
EP075(SIM)A: Phenolic Compounds																					
Phenol	108-95-2	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2-Chlorophenol	95-57-8	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2-Methylphenol	95-48-7	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2-Nitrophenol	88-75-5	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Pentachlorophenol	87-86-5	2.0	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons																					
Naphthalene	91-20-3	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Acenaphthylene	208-96-8	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Acenaphthene	83-32-9	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Fluorene	86-73-7	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Phenanthrene	85-01-8	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Anthracene	120-12-7	0.5	mg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	



Analytical Results

Sub-Matrix: SOIL

Sub-Matrix: SOIL	Client sample ID			Client sampling date / time		TP1 0.2-0.3	TP2 0.2-0.3	TP3 0.2-0.3	TP4 0.2-0.3	TP5 0.2-0.3
Compound	CAS Number	LOR	Unit	15-MAY-2009 11:00	EB0907967-002	15-MAY-2009 11:00	EB0907967-003	15-MAY-2009 11:00	EB0907967-007	15-MAY-2009 11:00
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued										
Fluoranthene	206-44-0	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	---	---	---	---	---	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons										
C6 - C9 Fraction	---	10	mg/kg	---	---	<10	<10	<10	<10	<10
C10 - C14 Fraction	---	50	mg/kg	---	---	<50	<50	<50	<50	<50
C15 - C28 Fraction	---	100	mg/kg	---	---	<100	<100	<100	<100	<100
C29 - C36 Fraction	---	100	mg/kg	---	---	<100	<100	<100	<100	<100
EP080: BTEX										
Benzene	71-43-2	0.2	mg/kg	---	---	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	---	---	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	---	---	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3	0.5	mg/kg	---	---	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	---	---	<0.5	<0.5	<0.5	<0.5	<0.5
EP066S: PCB Surrogate										
Decachlorobiphenyl	2051-24-3	0.1	%	---	---	---	---	---	77.6	85.2
EP068S: Organochlorine Pesticide Surrogate										
Dibromo-DDE	21655-73-2	0.1	%	---	---	---	---	---	82.4	86.0
EP068T: Organophosphorus Pesticide Surrogate										
DEF	78-48-8	0.1	%	---	---	---	---	---	75.7	83.6
EP075(SIM)S: Phenolic Compound Surrogates										
Phenol-d6	13127-88-3	0.1	%	---	---	---	---	---	76.0	76.3
2-Chlorophenol-D4	93951-73-6	0.1	%	---	---	---	---	---	74.7	85.4
2,4,6-Tribromophenol	118-79-6	0.1	%	---	---	---	---	---	67.5	75.3
EP075(SIM)T: PAH Surrogates										
2-Fluorobiphenyl	321-60-8	0.1	%	---	---	---	---	---	72.8	80.8
Anthracene-d10	1719-06-8	0.1	%	---	---	---	---	---	87.0	99.2
4-Terphenyl-d14	1718-51-0	0.1	%	---	---	---	---	---	79.4	90.5
EP080S: TPH(V)/BTEX Surrogates										
1,2-Dichloroethane-D4	17060-07-0	0.1	%	---	---	94.4	93.6	91.6	91.6	94.9



Page : 6 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	Client sampling date / time		Client sample ID	
		LOR	Unit	TP1 0.2-0.3	TP2 0.2-0.3
EP080S: TPH(V)/BTX Surrogates - Continued					
Toluene-D8	2037-26-5	0.1	%	---	90.2
4-Bromofluorobenzene	460-00-4	0.1	%	---	74.9
TP3 0.2-0.3					
15-MAY-2009 11:00					
EB0907967-005					
TP4 0.2-0.3					
15-MAY-2009 11:00					
EB0907967-007					
TP5 0.2-0.3					
15-MAY-2009 11:00					
EB0907967-009					
86.8					
75.4					
86.9					
74.5					
88.6					
75.8					



Page : 7 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: SOIL		Client sample ID		Client sampling date / time		Client sample ID		Client sampling date / time		Client sample ID		Client sampling date / time	
Compound	CAS Number	LOR	Unit	TP6 0.2-0.3	TP7 0.2-0.3	TP8 0.0-0.1	TP9 0.2-0.3	TP10 0.2-0.3	TP11 0.2-0.3	TP12 0.2-0.3	TP13 0.2-0.3	TP14 0.2-0.3	TP15 0.2-0.3
EA055: Moisture Content		---	---	15.2	33.5	15.4	6.8	6.1	---	---	---	---	---
^ Moisture Content (dried @ 103°C)		---	---	---	---	---	---	---	---	---	---	---	---
EG005T: Total Metals by ICP-AES		---	---	---	---	---	---	---	---	---	---	---	---
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	8	4	3	2	3	2	3	2	3	3
Copper	7440-50-8	5	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Lead	7439-92-1	5	mg/kg	<5	6	<5	<5	6	<5	<5	<5	6	6
Nickel	7440-02-0	2	mg/kg	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc	7440-66-6	5	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	5
EG035T: Total Recoverable Mercury by FIMS		---	---	---	---	---	---	---	---	---	---	---	---
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)		---	---	---	---	---	---	---	---	---	---	---	---
Total Polychlorinated biphenyls		---	---	---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
EP068A: Organochlorine Pesticides (OC)		---	---	---	---	---	---	---	---	---	---	---	---
alpha-BHC	319-84-6	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDE	72-55-9	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	---	<0.2	---	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	---	<0.2	---	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EP068B: Organophosphorus Pesticides (OP)		---	---	---	---	---	---	---	---	---	---	---	---
Dichlorvos	62-73-7	0.05	mg/kg	---	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05



Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID				
				Client sampling date / time	TP6 0.2-0.3	TP7 0.2-0.3	TP8 0.0-0.1	TP9 0.2-0.3
				15-MAY-2009 11:00	EB0907967-011	EB0907967-013	EB0907967-014	EB0907967-017
TP10 0.2-0.3								
15-MAY-2009 11:00								
EB0907967-019								
EP068B: Organophosphorus Pesticides (OP) - Continued								
Demeton-S-methyl	919-86-8	0.05	mg/kg	---	<0.05	---	---	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg	---	<0.2	---	---	<0.2
Dimethoate	60-51-5	0.05	mg/kg	---	<0.05	---	---	<0.05
Diazinon	333-41-5	0.05	mg/kg	---	<0.05	---	---	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	---	<0.05	---	---	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg	---	<0.2	---	---	<0.2
Malathion	121-75-5	0.05	mg/kg	---	<0.05	---	---	<0.05
Fenthion	55-38-9	0.05	mg/kg	---	<0.05	---	---	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg	---	<0.05	---	---	<0.05
Parathion	56-38-2	0.2	mg/kg	---	<0.2	---	---	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	---	<0.05	---	---	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg	---	<0.05	---	---	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg	---	<0.05	---	---	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg	---	<0.05	---	---	<0.05
Prothiofos	34643-46-4	0.05	mg/kg	---	<0.05	---	---	<0.05
Ethion	563-12-2	0.05	mg/kg	---	<0.05	---	---	<0.05
Carbophenothion	786-19-6	0.05	mg/kg	---	<0.05	---	---	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg	---	<0.05	---	---	<0.05
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	---	<0.5	---	---	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	---	<0.5	---	---	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	---	<0.5	---	---	<0.5
3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	---	<1.0	---	---	<1.0
2-Nitrophenol	88-75-5	0.5	mg/kg	---	<0.5	---	---	<0.5
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	---	<0.5	---	---	<0.5
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	---	<0.5	---	---	<0.5
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	---	<0.5	---	---	<0.5
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	---	<0.5	---	---	<0.5
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	---	<0.5	---	---	<0.5
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	---	<0.5	---	---	<0.5
Pentachlorophenol	87-86-5	2.0	mg/kg	---	<2.0	---	---	<2.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	---	<0.5	---	---	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	---	<0.5	---	---	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	---	<0.5	---	---	<0.5
Fluorene	86-73-7	0.5	mg/kg	---	<0.5	---	---	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	---	<0.5	---	---	<0.5
Anthracene	120-12-7	0.5	mg/kg	---	<0.5	---	---	<0.5



Page : 9 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: SOIL

Sub-Matrix: SOIL		Client sample ID		Client sampling date / time		TP6 0.2-0.3		TP7 0.2-0.3		TP8 0.0-0.1		TP9 0.2-0.3		TP10 0.2-0.3	
Compound		CAS Number	LOR	Unit	15-MAY-2009 11:00	EB0907967-011	15-MAY-2009 11:00	EB0907967-013	15-MAY-2009 11:00	EB0907967-014	15-MAY-2009 11:00	EB0907967-017	15-MAY-2009 11:00	EB0907967-019	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued															
Fluoranthene		206-44-0	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Pyrene		129-00-0	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Benzo(a)anthracene		56-55-3	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Chrysene		218-01-9	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Benzo(b)fluoranthene		205-99-2	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Benzo(k)fluoranthene		207-08-9	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Benzo(a)pyrene		50-32-8	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Indeno(1,2,3.cd)pyrene		193-39-5	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Dibenz(a,h)anthracene		53-70-3	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Benzo(g,h,i)perylene		191-24-2	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
EP080/071: Total Petroleum Hydrocarbons															
C6 - C9 Fraction		---	10	mg/kg	---	---	<10	---	<10	---	<10	---	<10	<10	
C10 - C14 Fraction		---	50	mg/kg	---	---	<50	---	<50	---	<50	---	<50	<50	
C15 - C28 Fraction		---	100	mg/kg	---	---	<100	---	<100	---	<100	---	<100	<100	
C29 - C36 Fraction		---	100	mg/kg	---	---	<100	---	<100	---	<100	---	<100	<100	
EP080: BTEX															
Benzene		71-43-2	0.2	mg/kg	---	---	<0.2	---	<0.2	---	<0.2	---	<0.2	<0.2	
Toluene		108-88-3	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
Ethylbenzene		100-41-4	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
meta- & para-Xylene		108-38-3	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
ortho-Xylene		95-47-6	0.5	mg/kg	---	---	<0.5	---	<0.5	---	<0.5	---	<0.5	<0.5	
EP066S: PCB Surrogate															
Decachlorobiphenyl		2051-24-3	0.1	%	---	---	93.4	---	94.7	---	79.4	---	79.4	79.4	
EP068S: Organochlorine Pesticide Surrogate															
Dibromo-DDE		21655-73-2	0.1	%	---	---	92.6	---	90.2	---	79.1	---	79.1	79.1	
EP068T: Organophosphorus Pesticide Surrogate															
DEF		78-48-8	0.1	%	---	---	89.6	---	97.0	---	81.5	---	81.5	81.5	
EP075(SIM)S: Phenolic Compound Surrogates															
Phenol-d6		13127-88-3	0.1	%	---	---	75.2	---	75.1	---	78.2	---	78.2	78.2	
2-Chlorophenol-D4		93951-73-6	0.1	%	---	---	82.6	---	81.9	---	86.2	---	86.2	86.2	
2,4,6-Tribromophenol		118-79-6	0.1	%	---	---	72.1	---	75.9	---	74.3	---	74.3	74.3	
EP075(SIM)T: PAH Surrogates															
2-Fluorobiphenyl		321-60-8	0.1	%	---	---	82.1	---	79.3	---	85.0	---	85.0	85.0	
Anthracene-d10		1719-06-8	0.1	%	---	---	107	---	104	---	113	---	113	113	
4-Terphenyl-d14		1718-51-0	0.1	%	---	---	88.5	---	92.1	---	99.1	---	99.1	99.1	
EP080S: TPH(V)/BTEX Surrogates															
1,2-Dichloroethane-D4		17060-07-0	0.1	%	---	---	86.0	---	99.6	---	96.9	---	96.9	96.9	



Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Client sample ID		Unit	Client sampling date / time			
			TP6 0.2-0.3	TP7 0.2-0.3	TP8 0.0-0.1	TP9 0.2-0.3	TP10 0.2-0.3		
			15-MAY-2009 11:00	15-MAY-2009 11:00	15-MAY-2009 11:00	15-MAY-2009 11:00	15-MAY-2009 11:00		
			EB0907967-011	EB0907967-013	EB0907967-014	EB0907967-017	EB0907967-019		
EP080S: TPH(V)/BTX Surrogates - Continued									
Toluene-D8	2037-26-5	0.1	---	84.5	---	91.8	88.4		
4-Bromofluorobenzene	460-00-4	0.1	---	77.0	---	79.8	77.8		

RTI DL RELEASE - EHP



Page : 11 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: SOIL

		Client sample ID		Client sampling date / time			
		CAS Number	LOR	Unit	Dup 02	Dup 03	
EA055: Moisture Content					15-MAY-2009 11:00	15-MAY-2009 11:00	
^ Moisture Content (dried @ 103°C)		---	1.0	%	11.4	9.6	
EG005T: Total Metals by ICP-AES					EB0907967-020	EB0907967-021	
Arsenic	7440-38-2	5		mg/kg	<5	<5	
Cadmium	7440-43-9	1		mg/kg	<1	<1	
Chromium	7440-47-3	2		mg/kg	6	3	
Copper	7440-50-8	5		mg/kg	<5	<5	
Lead	7439-92-1	5		mg/kg	<5	<5	
Nickel	7440-02-0	2		mg/kg	<2	<2	
Zinc	7440-66-6	5		mg/kg	<5	<5	
EG035T: Total Recoverable Mercury by FIMS							
Mercury	7439-97-6	0.1		mg/kg	<0.1	<0.1	
EP080/071: Total Petroleum Hydrocarbons							
C6 - C9 Fraction	---	10		mg/kg	<10	<10	
C10 - C14 Fraction	---	50		mg/kg	<50	<50	
C15 - C28 Fraction	---	100		mg/kg	<100	<100	
C29 - C36 Fraction	---	100		mg/kg	<100	<100	
EP080: BTEX							
Benzene	71-43-2	0.2		mg/kg	<0.2	<0.2	
Toluene	108-88-3	0.5		mg/kg	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5		mg/kg	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5		mg/kg	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5		mg/kg	<0.5	<0.5	
EP080S: TPH(V)/BTX Surrogates							
1,2-Dichloroethane-D4	17060-07-0	0.1		%	94.6	92.9	
Toluene-D8	2037-26-5	0.1		%	109	95.7	
4-Bromofluorobenzene	460-00-4	0.1		%	89.0	81.4	



Page : 12 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	10	164
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	10	136
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	10	110
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	24	113
2-Chlorophenol-D4	93951-73-6	23	134
2,4,6-Tribromophenol	118-79-6	19	115
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	30	115
Anthracene-d10	1719-06-8	27	133
4-Terphenyl-d14	1718-51-0	18	137
EP080S: TPH(V)/BTX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	121
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121



Environmental Division

QUALITY CONTROL REPORT

Work Order	: EB0907967	Page	: 1 of 12
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Klimister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ----	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park	Date Samples Received	: 19-MAY-2009
C-O-C number	: ----	Issue Date	: 27-MAY-2009
Sampler	: O KANAS	No. of samples received	: 21
Order number	: ----	No. of samples analysed	: 12
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Matthew Goodwin	Senior Organic Chemist	Organics
Sarah Ashworth	Organic Chemist	Organics

Environmental Division Brisbane

Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QED9537

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
= Indicates failed QC



Page : 3 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: SOIL

Sub-Matrix: SOIL		Laboratory sample ID		Client sample ID		Method: Compound		CAS Number		LOR		Unit		Original Result		Duplicate Result		RPD (%)		Recovery Limits (%)	
EA055: Moisture Content (QC Lot: 984798)																					
EB0907838-044		Anonymous				EA055-103: Moisture Content (dried @ 103°C)		---		1.0		%		26.8		27.5		2.7		0% - 20%	
EB0907838-059		Anonymous				EA055-103: Moisture Content (dried @ 103°C)		---		1.0		%		1.3		1.1		14.0		No Limit	
EA055: Moisture Content (QC Lot: 984799)																					
EB0907967-013		TP7 0.2-0.3				EA055-103: Moisture Content (dried @ 103°C)		---		1.0		%		33.5		34.2		2.0		0% - 20%	
EG005T: Total Metals by ICP-AES (QC Lot: 984846)																					
Anonymous																					
EB0907724-015		EG005T: Cadmium				7440-43-9		1		mg/kg		<1		<1		0.0		No Limit			
		EG005T: Chromium				7440-47-3		2		mg/kg		40		41		2.8		0% - 20%			
		EG005T: Nickel				7440-02-0		2		mg/kg		52		39		# 27.8		0% - 50%			
		EG005T: Arsenic				7440-38-2		5		mg/kg		5		6		0.0		No Limit			
		EG005T: Copper				7440-50-8		5		mg/kg		34		34		0.0		No Limit			
		EG005T: Lead				7439-92-1		5		mg/kg		<5		<5		0.0		No Limit			
		EG005T: Zinc				7440-66-6		5		mg/kg		60		50		18.4		0% - 50%			
EB0907953-002		EG005T: Cadmium				7440-43-9		1		mg/kg		<1		<1		0.0		No Limit			
		EG005T: Chromium				7440-47-3		2		mg/kg		15		12		18.4		No Limit			
		EG005T: Nickel				7440-02-0		2		mg/kg		11		9		21.5		No Limit			
		EG005T: Arsenic				7440-38-2		5		mg/kg		7		<5		39.8		No Limit			
		EG005T: Copper				7440-50-8		5		mg/kg		26		24		5.9		No Limit			
		EG005T: Lead				7439-92-1		5		mg/kg		34		44		23.9		No Limit			
		EG005T: Zinc				7440-66-6		5		mg/kg		74		69		6.7		0% - 50%			
EG005T: Total Metals by ICP-AES (QC Lot: 984849)																					
TP9 0.2-0.3																					
EB0907967-017		EG005T: Cadmium				7440-43-9		1		mg/kg		<1		<1		0.0		No Limit			
		EG005T: Chromium				7440-47-3		2		mg/kg		2		3		0.0		No Limit			
		EG005T: Nickel				7440-02-0		2		mg/kg		<2		<2		0.0		No Limit			
		EG005T: Arsenic				7440-38-2		5		mg/kg		<5		<5		0.0		No Limit			
		EG005T: Copper				7440-50-8		5		mg/kg		<5		<5		0.0		No Limit			
		EG005T: Lead				7439-92-1		5		mg/kg		<5		<5		0.0		No Limit			
		EG005T: Zinc				7440-66-6		5		mg/kg		<5		<5		0.0		No Limit			
EB0907980-009		EG005T: Cadmium				7440-43-9		1		mg/kg		<1		<1		0.0		No Limit			
		EG005T: Chromium				7440-47-3		2		mg/kg		14		14		0.0		No Limit			
		EG005T: Nickel				7440-02-0		2		mg/kg		7		7		0.0		No Limit			
		EG005T: Arsenic				7440-38-2		5		mg/kg		8		9		16.2		No Limit			
		EG005T: Copper				7440-50-8		5		mg/kg		698		719		2.9		0% - 20%			
		EG005T: Lead				7439-92-1		5		mg/kg		8		9		14.7		No Limit			
		EG005T: Zinc				7440-66-6		5		mg/kg		34		32		4.8		No Limit			
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 984847)																					



Page : 4 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: SOIL		Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 984847) - continued									
EB0907724-015	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EB0907953-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 984850)									
EB0907967-017	TP9 0.2-0.3	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 986346)									
EB0907967-007	TP4 0.2-0.3	EP066: Total Polychlorinated biphenyls	---	0.10	mg/kg	<0.10	<0.10	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 986345)									
EB0907967-007	TP4 0.2-0.3	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	859-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-74-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 986345)									
EB0907967-007	TP4 0.2-0.3	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Page : 5 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: SOIL

Sub-Matrix: SOIL		Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)				
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 986345) - continued EB0907967-007		TP4 0.2-0.3		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit				
				EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit				
				EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit				
				EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit				
				EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit				
				EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit				
				EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit				
				EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit				
				EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit				
				RTI DL RELEASE - EHP											
EP075(SIM)A: Phenolic Compounds (QC Lot: 986337) EB0907967-009		TP5 0.2-0.3		EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 2,6-Dichlorophenol	87-65-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1.0	<1.0	0.0	No Limit								
EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	<2.0	<2.0	0.0	No Limit								
RTI DL RELEASE - EHP															
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 986337) EB0907967-009		TP5 0.2-0.3		EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Fluoranthene	208-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Dibenzo(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit				
				RTI DL RELEASE - EHP											



Page : 6 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: SOIL			Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Method/Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 984803)									
EB0907838-062	Anonymous	EP080: C6 - C9 Fraction	---	10	mg/kg	57	63	9.9	No Limit
EB0907953-003	Anonymous	EP080: C6 - C9 Fraction	---	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 986336)									
EB0907934-001	Anonymous	EP071: C15 - C28 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	---	50	mg/kg	<50	<50	0.0	No Limit
		EP071: C15 - C28 Fraction	---	100	mg/kg	<100	<100	0.0	No Limit
	EB0907967-009	TP5 0.2-0.3	EP071: C29 - C36 Fraction	---	100	mg/kg	<100	<100	0.0
		EP071: C10 - C14 Fraction	---	50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEX (QC Lot: 984803)									
EB0907838-062	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	1.0	1.0	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	12.1	13.0	6.9	0% - 20%
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	1.9	2.1	7.9	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	8.8	10.0	12.5	0% - 20%
			106-42-3						
EB0907953-003	Anonymous	EP080: ortho-Xylene	95-47-6	0.5	mg/kg	3.0	3.4	11.7	No Limit
		EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		106-42-3							
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Page : 7 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Method Blank (MB) Report		Laboratory Control Spike (LCS) Report			
Method/Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)	Low	High	
EG005T: Total Metals by ICP-AES (QCLot: 984846)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.8 mg/kg	95.1	78	124	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.82 mg/kg	91.9	77	117	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	61.6 mg/kg	99.2	83	119	
EG005T: Copper	7440-50-8	5	mg/kg	<5	54.7 mg/kg	100	82	122	
EG005T: Lead	7439-92-1	5	mg/kg	<5	55.5 mg/kg	90.4	83	117	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.1 mg/kg	94.7	83	121	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	105 mg/kg	94.0	82	120	
EG005T: Total Metals by ICP-AES (QCLot: 984849)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.8 mg/kg	94.4	78	124	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.82 mg/kg	93.2	77	117	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	61.6 mg/kg	98.7	83	119	
EG005T: Copper	7440-50-8	5	mg/kg	<5	54.7 mg/kg	97.9	82	122	
EG005T: Lead	7439-92-1	5	mg/kg	<5	55.5 mg/kg	91.6	83	117	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.1 mg/kg	93.9	83	121	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	105 mg/kg	97.2	82	120	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984847)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	---	---	---	---	
		0.10	mg/kg	---	1.34 mg/kg	98.3	78	129	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984850)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	---	---	---	---	
		0.10	mg/kg	---	1.34 mg/kg	98.5	78	129	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 986346)									
EP066: Total Polychlorinated biphenyls	---	0.1	mg/kg	---	0.5 mg/kg	81.7	53.8	105	
		0.10	mg/kg	<0.10	---	---	---	---	
EP068A: Organochlorine Pesticides (OC) (QCLot: 986345)									
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.25 mg/kg	72.6	58.4	116	
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.25 mg/kg	72.5	57.7	107	
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.25 mg/kg	73.6	59.3	116	
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.25 mg/kg	71.4	59.1	118	
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.25 mg/kg	75.2	56	117	
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.25 mg/kg	86.4	57.3	119	
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.25 mg/kg	75.0	58.2	113	
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.25 mg/kg	71.4	60.4	113	
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.25 mg/kg	74.7	60.3	114	

Page : 8 of 12
 Work Order : EB0907967
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537



Sub-Matrix: SOIL

Sub-Matrix: SOIL		Laboratory Control Spike (LCS) Report								
Method: Compound		CAS Number	LOR	Unit	Method Blank (MB) Report	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
							LCS	Low	High	
EP068A: Organochlorine Pesticides (OC) (QCLot: 986345) - continued										
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.25 mg/kg	77.4	56	120		
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.25 mg/kg	74.5	60.8	113		
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.25 mg/kg	74.9	58.8	115		
EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.25 mg/kg	77.1	61.2	116		
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.25 mg/kg	69.9	47	133		
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.25 mg/kg	75.3	58.5	117		
EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	0.25 mg/kg	74.9	58.4	118		
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.25 mg/kg	77.1	46.3	115		
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.25 mg/kg	78.0	53.6	120		
EP068: 4,4'-DDT	50-29-3	0.05	mg/kg	---	0.25 mg/kg	75.6	52.6	129		
		0.2	mg/kg	<0.2	---	---	---	---		
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.25 mg/kg	73.0	51.6	124		
EP068: Methoxychlor	72-43-5	0.05	mg/kg	---	0.25 mg/kg	71.4	52.4	129		
		0.2	mg/kg	<0.2	---	---	---	---		
EP068B: Organophosphorus Pesticides (OP) (QCLot: 986345)										
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.25 mg/kg	71.3	43.9	113		
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.25 mg/kg	# 27.5	31.8	112		
EP068: Monocrotophos	6923-22-4	0.05	mg/kg	---	0.25 mg/kg	78.9	33	130		
		0.2	mg/kg	<0.2	---	---	---	---		
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.25 mg/kg	76.6	46.4	129		
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.25 mg/kg	74.5	57.1	114		
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.25 mg/kg	75.4	58.9	113		
EP068: Parathion-methyl	298-00-0	0.05	mg/kg	---	0.25 mg/kg	75.4	54.8	112		
		0.2	mg/kg	<0.2	---	---	---	---		
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.25 mg/kg	77.2	57.8	119		
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.25 mg/kg	69.1	68	109		
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.25 mg/kg	74.9	62.2	115		
EP068: Parathion	56-38-2	0.05	mg/kg	---	0.25 mg/kg	75.6	54.7	113		
		0.2	mg/kg	<0.2	---	---	---	---		
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.25 mg/kg	76.0	51.9	121		
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.25 mg/kg	94.1	58	118		
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.25 mg/kg	81.3	59.8	115		
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.25 mg/kg	68.1	32.5	101		
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.25 mg/kg	74.7	59.6	116		
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.25 mg/kg	77.4	58.4	118		
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.25 mg/kg	75.8	56.9	117		
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.25 mg/kg	73.8	42	130		
EP075(SIM)A: Phenolic Compounds (QCLot: 986337)										
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	5.0 mg/kg	88.6	61	119		



Page : 9 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: SOIL

Method: Compound				Method Blank (MB) Report		Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 986337) - continued									
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	5.0 mg/kg	81.9	63	117	
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	5.0 mg/kg	89.9	62	119	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1.0	10 mg/kg	90.1	57	120	
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	5.0 mg/kg	82.0	49	125	
EP075(SIM): 2,4-Dimethylphenol	105-67-3	0.5	mg/kg	<0.5	5.0 mg/kg	86.1	58	116	
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	5.0 mg/kg	105	58	116	
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	5.0 mg/kg	72.7	59	119	
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	5.0 mg/kg	84.2	61	121	
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	5.0 mg/kg	81.0	55	116	
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	5.0 mg/kg	73.3	53	116	
EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	<2.0	10 mg/kg	100	41	137	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 986337)									
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	5.0 mg/kg	84.6	66	114	
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	5.0 mg/kg	80.2	63	113	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	5.0 mg/kg	85.2	65	114	
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	5.0 mg/kg	81.8	65	111	
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	5.0 mg/kg	110	60	112	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	5.0 mg/kg	# 114	65	110	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	5.0 mg/kg	109	64	111	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	5.0 mg/kg	111	64	111	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	5.0 mg/kg	# 123	61	115	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	5.0 mg/kg	100	57	114	
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	5.0 mg/kg	107	46	124	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	5.0 mg/kg	72.9	48	124	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	5.0 mg/kg	84.6	55	116	
EP075(SIM): Indeno(1,2,3-cd)pyrene	193-39-6	0.5	mg/kg	<0.5	5.0 mg/kg	67.7	52	130	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	5.0 mg/kg	82.4	54	129	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	5.0 mg/kg	74.9	52	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 984803)									
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	16 mg/kg	85.9	71	123	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 986336)									
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	259 mg/kg	97.8	65	112	
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	524 mg/kg	90.1	76.2	122	
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	----	----	----	----	
EP080: BTEX (QCLot: 984803)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	101	78	121	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	98.9	78	121	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	92.3	72	119	



Page : 10 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: SOIL

Sub-Matrix: SOIL				Laboratory Control Spike (LCS) Report			
Method Blank (MB) Report		Spike Concentration		Spike Recovery (%)		Recovery Limits (%)	
Result		LCS		Low		High	
Low		High		Low		High	
Method: Compound	CAS Number	LOR	Unit				
EP080: BTEX (QCLot: 984803) - continued							
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	2 mg/kg	88.6	66	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	1 mg/kg	89.4	70	118



Page : 11 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: SOIL

Sub-Matrix: SOIL		Matrix Spike (MS) Report				
Laboratory sample ID	Client sample ID	Method/Compound	CAS Number	Spike Concentration	Spike Recovery (%)	Recovery Limits (%)
EG005T: Total Metals by ICP-AES (QCLot: 984846)						
EB0907724-016	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	85.5	70 130
		EG005T: Cadmium	7440-43-9	25 mg/kg	97.5	70 130
		EG005T: Chromium	7440-47-3	50 mg/kg	# 24.6	70 130
		EG005T: Copper	7440-50-8	50 mg/kg	109	70 130
		EG005T: Lead	7439-92-1	50 mg/kg	108	70 130
		EG005T: Nickel	7440-02-0	50 mg/kg	115	70 130
		EG005T: Zinc	7440-66-6	50 mg/kg	116	70 130
EG005T: Total Metals by ICP-AES (QCLot: 984849)						
EB0907967-019	TP10 0.2-0.3	EG005T: Arsenic	7440-38-2	50 mg/kg	100	70 130
		EG005T: Cadmium	7440-43-9	25 mg/kg	102	70 130
		EG005T: Chromium	7440-47-3	50 mg/kg	103	70 130
		EG005T: Copper	7440-50-8	50 mg/kg	99.5	70 130
		EG005T: Lead	7439-92-1	50 mg/kg	100	70 130
		EG005T: Nickel	7440-02-0	50 mg/kg	102	70 130
		EG005T: Zinc	7440-66-6	50 mg/kg	102	70 130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984847)						
EB0907724-016	Anonymous	EG035T: Mercury	7439-97-6	5.0 mg/kg	95.2	70 130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984850)						
EB0907967-019	TP10 0.2-0.3	EG035T: Mercury	7439-97-6	5.0 mg/kg	91.3	70 130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 986346)						
EB0907967-009	TP5 0.2-0.3	EP066: Total Polychlorinated biphenyls	----	5 mg/kg	83.5	70 130
EP068A: Organochlorine Pesticides (OC) (QCLot: 986345)						
EB0907967-009	TP5 0.2-0.3	EP068: gamma-BHC	58-89-9	0.25 mg/kg	78.5	70 130
		EP068: Heptachlor	76-44-8	0.25 mg/kg	87.0	70 130
		EP068: Aldrin	309-00-2	0.25 mg/kg	74.2	70 130
		EP068: Dieldrin	60-57-1	0.25 mg/kg	79.8	70 130
		EP068: Endrin	72-20-8	1.0 mg/kg	78.8	70 130
		EP068: 4,4'-DDT	50-29-3	1.0 mg/kg	# 49.7	70 130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 986345)						
EB0907967-009	TP5 0.2-0.3	EP068: Diazinon	333-41-5	0.25 mg/kg	87.6	70 130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.25 mg/kg	84.8	70 130
		EP068: Pirimphos-ethyl	23505-41-1	0.25 mg/kg	80.8	70 130
		EP068: Bromophos-ethyl	4824-78-6	0.25 mg/kg	86.5	70 130
		EP068: Prothiofos	34643-46-4	0.25 mg/kg	81.6	70 130



Page : 12 of 12
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: SOIL

Sub-Matrix: SOIL			Matrix Spike (MS) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Recovery Limits (%)		
					MS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 986337)							
EB0907967-009	TP5 0.2-0.3	EP075(SIM): Phenol	108-95-2	2.5 mg/kg	95.9	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	2.5 mg/kg	89.4	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	2.5 mg/kg	81.1	70	130
		EP075(SIM): 2-Chloro-3-Methylphenol	59-50-7	2.5 mg/kg	87.2	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	2.5 mg/kg	118	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 986337)							
EB0907967-009	TP5 0.2-0.3	EP075(SIM): Acenaphthene	83-32-9	2.5 mg/kg	87.5	70	130
		EP075(SIM): Pyrene	129-00-0	2.5 mg/kg	121	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 984803)							
EB0907938-004	Anonymous	EP080: C6 - C9 Fraction	----	28 mg/kg	74.3	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 986336)							
EB0907934-002	Anonymous	EP071: C10 - C14 Fraction	----	259 mg/kg	92.8	70	130
		EP071: C15 - C28 Fraction	----	524 mg/kg	94.0	70	130
EP080: BTEX (QCLot: 984803)							
EB0907938-004	Anonymous	EP080: Benzene	71-43-2	2 mg/kg	99.8	70	130
		EP080: Toluene	108-88-3	2 mg/kg	103	70	130



Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: EB0907967	Page	: 1 of 7
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Klimister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ---	Telephone	: +61-7-3243 7222
Facsimile	: ---	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park	Date Samples Received	: 19-MAY-2009
C-O-C number	: ---	Issue Date	: 27-MAY-2009
Sampler	: O KANAS	No. of samples received	: 21
Order number	: ---	No. of samples analysed	: 12
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 7
 Work Order : EB0907967
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537

Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days); Mercury (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: SOIL

Matrix: SOIL		Sample Date		Extraction / Preparation		Analysis			
Method	Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Due for analysis	Evaluation	
EA055: Moisture Content									
Soil Glass Jar - Unpreserved	TP1 0.2-0.3, TP2 0.2-0.3, TP3 0.2-0.3, TP4 0.2-0.3, TP5 0.2-0.3, TP6 0.2-0.3, TP7 0.2-0.3, TP8 0.0-0.1, TP9 0.2-0.3, TP10 0.2-0.3, Dup 02, Dup 03	15-MAY-2009	---	---	---	---	21-MAY-2009	22-MAY-2009	✓
EG005T: Total Metals by ICP-AES									
Soil Glass Jar - Unpreserved	TP1 0.2-0.3, TP2 0.2-0.3, TP3 0.2-0.3, TP4 0.2-0.3, TP5 0.2-0.3, TP6 0.2-0.3, TP7 0.2-0.3, TP8 0.0-0.1, TP9 0.2-0.3, TP10 0.2-0.3, Dup 02, Dup 03	15-MAY-2009	21-MAY-2009	11-NOV-2009		✓	21-MAY-2009	11-NOV-2009	✓
EG035T: Total Recoverable Mercury by FIMS									
Soil Glass Jar - Unpreserved	TP1 0.2-0.3, TP2 0.2-0.3, TP3 0.2-0.3, TP4 0.2-0.3, TP5 0.2-0.3, TP6 0.2-0.3, TP7 0.2-0.3, TP8 0.0-0.1, TP9 0.2-0.3, TP10 0.2-0.3, Dup 02, Dup 03	15-MAY-2009	21-MAY-2009	11-NOV-2009		✓	21-MAY-2009	12-JUN-2009	✓
EP066: Polychlorinated Biphenyls (PCB)									
Soil Glass Jar - Unpreserved	TP1 0.2-0.3, TP2 0.2-0.3, TP3 0.2-0.3, TP4 0.2-0.3, TP5 0.2-0.3, TP6 0.2-0.3, TP7 0.2-0.3, TP8 0.0-0.1, TP9 0.2-0.3, TP10 0.2-0.3, Dup 02, Dup 03	15-MAY-2009	22-MAY-2009	29-MAY-2009		✓	26-MAY-2009	01-JUL-2009	✓



Page : 3 of 7
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Matrix: SOIL		Evaluation: * = Holding time breach ; ✓ = Within holding time.					
Method	Sample Date	Extraction / Preparation		Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved							
TP4 0.2-0.3, TP7 0.2-0.3, TP10 0.2-0.3	15-MAY-2009	22-MAY-2009	29-MAY-2009	✓	26-MAY-2009	01-JUL-2009	✓
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved							
TP4 0.2-0.3, TP7 0.2-0.3, TP10 0.2-0.3	15-MAY-2009	22-MAY-2009	29-MAY-2009	✓	26-MAY-2009	01-JUL-2009	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved							
TP4 0.2-0.3, TP7 0.2-0.3, TP10 0.2-0.3	15-MAY-2009	22-MAY-2009	29-MAY-2009	✓	25-MAY-2009	01-JUL-2009	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved							
TP4 0.2-0.3, TP7 0.2-0.3, TP10 0.2-0.3	15-MAY-2009	22-MAY-2009	29-MAY-2009	✓	25-MAY-2009	01-JUL-2009	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved							
TP2 0.2-0.3, TP4 0.2-0.3, TP7 0.2-0.3, TP10 0.2-0.3, Dup 02, Dup 03	15-MAY-2009	21-MAY-2009	29-MAY-2009	✓	21-MAY-2009	29-MAY-2009	✓
Soil Glass Jar - Unpreserved							
TP3 0.2-0.3, TP5 0.2-0.3, TP9 0.2-0.3, Dup 02,	15-MAY-2009	22-MAY-2009	29-MAY-2009	✓	25-MAY-2009	01-JUL-2009	✓
EP080: BTEX							
Soil Glass Jar - Unpreserved							
TP2 0.2-0.3, TP4 0.2-0.3, TP7 0.2-0.3, TP10 0.2-0.3, Dup 02, Dup 03	15-MAY-2009	21-MAY-2009	29-MAY-2009	✓	21-MAY-2009	29-MAY-2009	✓



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(when) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: SOIL

Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification	
Analytical Methods		QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055-103	3	29	10.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	1	5	20.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	5	20.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	5	20.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	3	30	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	4	34	11.8	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	16	12.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	5	20.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	5	20.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	5	20.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	30	6.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	34	5.9	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	16	6.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	5	20.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	5	20.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	5	20.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	30	6.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	34	5.9	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	16	6.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	5	20.0	5.0	✓	ALS QCS3 requirement
Pesticides by GCMS	EP068	1	5	20.0	5.0	✓	ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	5	20.0	5.0	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	30	6.7	5.0	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	34	5.9	5.0	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	16	6.3	5.0	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	ALS QCS3 requirement



Page : 5 of 7
 Work Order : EB0907967
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (1999) Schedule B(3) (Method 102)
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 504)
Pesticides by GCMS	EP068	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (1999) Schedule B(3) (Method 504, 505)
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)
Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	USEPA 200.2 Mod. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (1999) Schedule B(3) (Method 202)
Methanolic Extraction of Solids for Purge and Trap	ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In-house, Mechanical agitation (tumbler). 20g of sample, Na ₂ SO ₄ and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.



Page : 6 of 7
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Preparation Methods	Method	Matrix	Method Descriptions
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.

RTI DL RELEASE - EHP



Page : 7 of 7
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

13-054

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: SOIL

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005T: Total Metals by ICP-AES	EB0907724-015	Anonymous	Nickel	7440-02-0	27.8 %	0-20%	RPD exceeds LOR based limits
Laboratory Control Spike (LCS) Recoveries							
EP068B: Organophosphorus Pesticides (OP)	1129953-002	---	Demeton-S-methyl	919-86-8	27.5 %	31.8-112%	Recovery less than lower control limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	1129947-016	---	Anthracene	120-12-7	114 %	65-110%	Recovery greater than upper control limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	1129947-016	---	Benz[a]anthracene	56-55-3	123 %	61-115%	Recovery greater than upper control limit
Matrix Spike (MS) Recoveries							
EG005T: Total Metals by ICP-AES	EB0907724-016	Anonymous	Chromium	7440-47-3	24.6 %	70-130%	Recovery less than lower data quality objective
EP068A: Organochlorine Pesticides (OC)	EB0907967-009	TP5 0.2-0.3	4,4'-DDT	50-29-3	49.7 %	70-130%	Recovery less than lower data quality objective

- For all matrices, no Method Blank value outliers occur.

Regular Sample Surrogates

- For all regular sample matrices, no surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.

DL Documents

Page 130 of 226



Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)
Comprehensive Report

Work Order : **EB0907967**

Client : **SINCLAIR KNIGHT MERZ**
Contact : **ONA KANAS**
Address : **32 CORDELIA STREET**
SOUTH BRISBANE QLD, AUSTRALIA
4101

Laboratory : **Environmental Division Brisbane**
Contact : **Tim Kilmister**
Address : **32 Shand Street Stafford QLD Australia**
4053

E-mail : **okanas@skm.com.au**
Telephone : **----**
Facsimile : **----**

E-mail : **Services.Brisbane@alsenviro.com**
Telephone : **+61-7-3243 7222**
Facsimile : **+61-7-3243 7218**

Project : **QE09537**
Order number : **----**
C-O-C number : **----**
Site : **Cronulla Park**
Sampler : **O KANAS**

Page : **1 of 3**
Quote number : **ES2009SINKNI0322 (EN/003/09)**
QC Level : **NEPM 1999 Schedule B(3) and ALS**
QCS3 requirement

Dates

Date Samples Received : **19-MAY-2009**
Client Requested Due Date : **26-MAY-2009**

Issue Date : **20-MAY-2009 16:22**
Scheduled Reporting Date : **27-MAY-2009**

Delivery Details

Mode of Delivery : **Client Drop off**
No. of coolers/boxes : **1 MEDIUM**
Security Seal : **Intact.**

Temperature : **4.4°C - Ice present**
No. of samples received : **21**
No. of samples analysed : **12**

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Requested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times.**
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Maggie Kahi.
- Analytical work for this work order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of work order.



Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- No sample container / preservation non-compliance exist.

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Matrix: SOIL

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL No analysis requested	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-05 TPH/BTEX/8 Metals	SOIL - S-19 TPH/BTEX/Ph/OC/OP/PCB/8 metals
EB0907967-001	15-MAY-2009 11:00	TP1 0.0-0.1	✓			
EB0907967-002	15-MAY-2009 11:00	TP1 0.2-0.3		✓		
EB0907967-003	15-MAY-2009 11:00	TP2 0.2-0.3			✓	
EB0907967-004	15-MAY-2009 11:00	TP3 0.0-0.1	✓			
EB0907967-005	15-MAY-2009 11:00	TP3 0.2-0.3			✓	
EB0907967-006	15-MAY-2009 11:00	TP4 0.0-0.1	✓			
EB0907967-007	15-MAY-2009 11:00	TP4 0.2-0.3				✓
EB0907967-008	15-MAY-2009 11:00	TP5 0.0-0.1	✓			
EB0907967-009	15-MAY-2009 11:00	TP5 0.2-0.3				✓
EB0907967-010	15-MAY-2009 11:00	TP6 0.0-0.1	✓			
EB0907967-011	15-MAY-2009 11:00	TP6 0.2-0.3		✓		
EB0907967-012	15-MAY-2009 11:00	TP7 0.0-0.1	✓			
EB0907967-013	15-MAY-2009 11:00	TP7 0.2-0.3				✓
EB0907967-014	15-MAY-2009 11:00	TP8 0.0-0.1		✓		
EB0907967-015	15-MAY-2009 11:00	TP8 0.2-0.3	✓			
EB0907967-016	15-MAY-2009 11:00	TP9 0.0-0.1	✓			
EB0907967-017	15-MAY-2009 11:00	TP9 0.2-0.3				✓
EB0907967-018	15-MAY-2009 11:00	TP10 0.0-0.1	✓			
EB0907967-019	15-MAY-2009 11:00	TP10 0.2-0.3				✓
EB0907967-020	15-MAY-2009 11:00	Dup 02			✓	
EB0907967-021	15-MAY-2009 11:00	Dup 03			✓	

Issue Date : 20-MAY-2009 16:22
Page : 3 of 3
Work Order : EB0907967
Client : SINCLAIR KNIGHT MERZ



Requested Deliverables

MR JEREMY WICKS

- *AU Certificate of Analysis - NATA (COA)	Email	jwicks@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jwicks@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jwicks@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	jwicks@skm.com.au
- A4 - AU Tax Invoice (INV)	Email	jwicks@skm.com.au
- Default - Chain of Custody (COC)	Email	jwicks@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	jwicks@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	jwicks@skm.com.au
- EDI Format - XTab (XTAB)	Email	jwicks@skm.com.au

ONA KANAS

- *AU Certificate of Analysis - NATA (COA)	Email	okanas@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	okanas@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	okanas@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	okanas@skm.com.au
- Default - Chain of Custody (COC)	Email	okanas@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	okanas@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	okanas@skm.com.au
- EDI Format - XTab (XTAB)	Email	okanas@skm.com.au

RTI DL RELEASE - EIR



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: EB0908932	Page	: 1 of 17
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Klimister
Address	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 4004	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: ---	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ---	Date Samples Received	: 03-JUN-2009
C-O-C number	: ---	Issue Date	: 12-JUN-2009
Sampler	: ---	No. of samples received	: 14
Site	: Cronulla Park	No. of samples analysed	: 14
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Matthew Goodwin	Senior Organic Chemist	Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics
Xingbin Lin	Instrument Chemist	Organics

Environmental Division Brisbane
Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

* = This result is computed from individual analyte detections at or above the level of reporting

- EP070- for all samples EB0908932, fractionation process was not complete- fractional surrogate recovery could not be accurately determined.
- PAH/Phenols: Sample MW05 required dilution due to the presence of high level contaminants.



Page : 3 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID				Client sampling date / time			
Compound	CAS Number	LOR	Unit	MW01	MW02	MW03	MW04	MW05	
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	0.002	0.001	<0.001	0.005	0.005	
Cadmium	7440-43-9	0.0001	mg/L	0.0003	0.0006	0.0001	0.0001	0.0003	
Chromium	7440-47-3	0.001	mg/L	0.018	0.004	<0.001	<0.001	0.006	
Copper	7440-50-8	0.001	mg/L	0.028	0.017	<0.001	<0.001	0.001	
Lead	7439-92-1	0.001	mg/L	0.064	0.043	<0.001	<0.001	0.002	
Nickel	7440-02-0	0.001	mg/L	0.038	0.098	0.004	0.003	0.122	
Zinc	7440-66-6	0.005	mg/L	0.154	0.349	0.035	0.009	0.043	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.03	0.02	<0.01	37.9	87.2	
EP070: Total Petroleum Hydrocarbons - Speciation									
Aliphatic C10-C14	---	50	µg/L	---	---	---	<50	<50	
Aliphatic C15-C28	---	100	µg/L	---	---	---	<100	400	
Aliphatic C29-C36	---	50	µg/L	---	---	---	<50	150	
Aromatic C10-C14	---	50	µg/L	---	---	---	70	180	
Aromatic C15-C28	---	100	µg/L	---	---	---	<100	<100	
Aromatic C29-C36	---	50	µg/L	---	---	---	<50	<50	
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	5	µg/L	---	---	<5	<5	<5	
Toluene	108-88-3	5	µg/L	---	---	<5	<5	10	
Ethylbenzene	100-41-4	5	µg/L	---	---	<5	<5	<5	
meta- & para-Xylene	108-38-3	5	µg/L	---	---	<5	<5	9	
Styrene	100-42-5	5	µg/L	---	---	<5	<5	<5	
ortho-Xylene	95-47-6	5	µg/L	---	---	<5	<5	<5	
Isopropylbenzene	98-82-8	5	µg/L	---	---	<5	5	<5	
n-Propylbenzene	103-65-1	5	µg/L	---	---	<5	8	<5	
1,3,5-Trimethylbenzene	108-67-8	5	µg/L	---	---	<5	<5	<5	
sec-Butylbenzene	135-98-8	5	µg/L	---	---	<5	<5	<5	
1,2,4-Trimethylbenzene	95-63-6	5	µg/L	---	---	<5	<5	14	
tert-Butylbenzene	98-06-6	5	µg/L	---	---	<5	<5	<5	
p-Isopropyltoluene	99-87-6	5	µg/L	---	---	<5	<5	18	
n-Butylbenzene	104-51-8	5	µg/L	---	---	<5	<5	<5	
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	50	µg/L	---	---	<50	<50	<50	
2-Butanone (MEK)	78-93-3	50	µg/L	---	---	<50	<50	<50	
4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	---	---	<50	<50	<50	



Page : 4 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : -----

Analytical Results

Sub-Matrix: WATER

Client sample ID		Client sampling date / time		Unit		MW01	MW02	MW03	MW04	MW05
CAS Number		LOR	Unit			02-JUN-2009 15:00 EB0908932-001	02-JUN-2009 15:00 EB0908932-002	02-JUN-2009 15:00 EB0908932-003	02-JUN-2009 15:00 EB0908932-004	02-JUN-2009 15:00 EB0908932-005
Compound										
EP074B: Oxygenated Compounds - Continued										
2-Hexanone (MBK)	591-78-6	50	µg/L	---	---	---	---	<50	<50	<50
EP074C: Sulfonated Compounds										
Carbon disulfide	75-15-0	5	µg/L	---	---	---	---	<5	<5	<5
EP074D: Fumigants										
2,2-Dichloropropane	594-20-7	5	µg/L	---	---	---	---	<5	<5	<5
1,2-Dichloropropane	78-87-5	5	µg/L	---	---	---	---	<5	<5	<5
cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	---	---	---	---	<5	<5	<5
trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	---	---	---	---	<5	<5	<5
1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	---	---	---	---	<5	<5	<5
EP074E: Halogenated Aliphatic Compounds										
Dichlorodifluoromethane	75-71-8	50	µg/L	---	---	---	---	<50	60	<50
Chloromethane	74-87-3	50	µg/L	---	---	---	---	<50	<50	<50
Vinyl chloride	75-01-4	50	µg/L	---	---	---	---	<50	<50	<50
Bromomethane	74-83-9	50	µg/L	---	---	---	---	<50	<50	<50
Chloroethane	75-00-3	50	µg/L	---	---	---	---	<50	<50	<50
Trichlorofluoromethane	75-69-4	50	µg/L	---	---	---	---	<50	<50	<50
1,1-Dichloroethane	75-35-4	5	µg/L	---	---	---	---	<5	<5	<5
Iodomethane	74-88-4	5	µg/L	---	---	---	---	<5	<5	<5
trans-1,2-Dichloroethane	156-60-5	5	µg/L	---	---	---	---	<5	<5	<5
1,1-Dichloroethane	75-34-3	5	µg/L	---	---	---	---	<5	<5	<5
cis-1,2-Dichloroethane	156-59-2	5	µg/L	---	---	---	---	<5	<5	<5
1,1,1-Trichloroethane	71-55-6	5	µg/L	---	---	---	---	<5	<5	<5
1,1-Dichloropropylene	563-58-6	5	µg/L	---	---	---	---	<5	<5	<5
Carbon Tetrachloride	56-23-5	5	µg/L	---	---	---	---	<5	<5	<5
1,2-Dichloroethane	107-06-2	5	µg/L	---	---	---	---	<5	<5	<5
Trichloroethane	79-01-6	5	µg/L	---	---	---	---	<5	<5	<5
Dibromomethane	74-95-3	5	µg/L	---	---	---	---	<5	<5	<5
1,1,2-Trichloroethane	79-00-5	5	µg/L	---	---	---	---	<5	<5	<5
1,3-Dichloropropane	142-28-9	5	µg/L	---	---	---	---	<5	<5	<5
Tetrachloroethane	127-18-4	5	µg/L	---	---	---	---	<5	<5	<5
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	---	---	---	---	<5	<5	<5
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	---	---	---	---	<5	<5	<5
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	---	---	---	---	<5	<5	<5
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	---	---	---	---	<5	<5	<5
1,2,3-Trichloropropane	96-18-4	5	µg/L	---	---	---	---	<5	<5	<5
Pentachloroethane	76-01-7	5	µg/L	---	---	---	---	<5	<5	<5
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	---	---	---	---	<5	<5	<5
Hexachlorobutadiene	87-68-3	5	µg/L	---	---	---	---	<5	<5	<5



Page : 5 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Analytical Results

Sub-Matrix: WATER

Compound	CAS Number	LOR	Unit	Client sample ID				
				Client sampling date / time				
				MW01	MW02	MW03	MW04	MW05
				02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-001	EB0908932-002	EB0908932-003	EB0908932-004	EB0908932-005
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90-7	5	µg/L	---	---	<5	6	14
Bromobenzene	108-86-1	5	µg/L	---	---	<5	<5	<5
2-Chlorotoluene	95-49-8	5	µg/L	---	---	<5	<5	<5
4-Chlorotoluene	106-43-4	5	µg/L	---	---	<5	<5	<5
1,3-Dichlorobenzene	541-73-1	5	µg/L	---	---	<5	<5	<5
1,4-Dichlorobenzene	106-46-7	5	µg/L	---	---	<5	<5	47
1,2-Dichlorobenzene	95-50-1	5	µg/L	---	---	<5	<5	8
1,2,4-Trichlorobenzene	120-82-1	5	µg/L	---	---	<5	<5	<5
1,2,3-Trichlorobenzene	87-61-6	5	µg/L	---	---	<5	<5	<5
EP074G: Trihalomethanes								
Chloroform	67-66-3	5	µg/L	---	---	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L	---	---	<5	<5	<5
Dibromochloromethane	124-48-1	5	µg/L	---	---	<5	<5	<5
Bromoform	75-25-2	5	µg/L	---	---	<5	<5	<5
EP074H: Naphthalene								
Naphthalene	91-20-3	7	µg/L	---	---	<7	17	20
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	1.0	µg/L	---	---	<1.0	<1.0	<1.0
2-Chlorophenol	95-67-8	1.0	µg/L	---	---	<1.0	<1.0	<1.0
2-Methylphenol	95-48-7	1.0	µg/L	---	---	<1.0	<1.0	225
3- & 4-Methylphenol	1319-77-3	2.0	µg/L	---	---	<2.0	<2.0	49.0
2-Nitrophenol	88-75-5	1.0	µg/L	---	---	<1.0	<1.0	<1.0
2,4-Dimethylphenol	105-67-9	1.0	µg/L	---	---	<1.0	<1.0	4.6
2,4-Dichlorophenol	120-83-2	1.0	µg/L	---	---	<1.0	<1.0	1.3
2,6-Dichlorophenol	87-65-0	1.0	µg/L	---	---	<1.0	<1.0	<1.0
4-Chloro-3-Methylphenol	59-50-7	1.0	µg/L	---	---	<1.0	<1.0	36.4
2,4,6-Trichlorophenol	88-06-2	1.0	µg/L	---	---	<1.0	<1.0	<1.0
2,4,5-Trichlorophenol	95-95-4	1.0	µg/L	---	---	<1.0	<1.0	1.0
Pentachlorophenol	87-86-5	2.0	µg/L	---	---	<2.0	<2.0	<2.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	1.0	µg/L	---	---	<1.0	19.5	24.0
Acenaphthylene	208-96-8	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L	---	---	<1.0	<1.0	<1.0



Page : 6 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER	Compound	Client sample ID			MW01	MW02	MW03	MW04	MW05
		Client sampling date / time		Unit					
		CAS Number	LOR						
Polynuclear Aromatic Hydrocarbons - Continued	Benz(a)anthracene	56-55-3	1.0	µg/L	---	---	<1.0	<1.0	<1.0
	Chrysene	218-01-9	1.0	µg/L	---	---	<1.0	<1.0	<1.0
	Benzo(b)fluoranthene	205-99-2	1.0	µg/L	---	---	<1.0	<1.0	<1.0
	Benzo(k)fluoranthene	207-08-9	1.0	µg/L	---	---	<1.0	<1.0	<1.0
	Benzo(a)pyrene	50-32-8	0.5	µg/L	---	---	<0.5	<0.5	<0.5
	Indeno(1,2,3.cd)pyrene	193-39-5	1.0	µg/L	---	---	<1.0	<1.0	<1.0
	Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	---	---	<1.0	<1.0	<1.0
	Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	---	---	<1.0	<1.0	<1.0
	EP080(071): Total Petroleum Hydrocarbons								
	C6 - C9 Fraction	---	20	µg/L	<20	<20	<20	30	60
	C10 - C14 Fraction	---	50	µg/L	---	---	---	90	450
	C10 - C14 Fraction	---	50	µg/L	<50	<50	<50	---	---
	C15 - C28 Fraction	---	100	µg/L	---	---	---	<100	500
	C15 - C28 Fraction	---	100	µg/L	<100	<100	<100	---	---
	C29 - C36 Fraction	---	50	µg/L	---	---	---	<50	150
C29 - C36 Fraction	---	50	µg/L	<50	<50	<50	---	---	
EP080: BTEX									
Benzene	71-43-2	1	µg/L	<1	<1	---	---	---	
Toluene	108-88-3	2	µg/L	<2	<2	---	---	---	
Ethylbenzene	100-41-4	2	µg/L	<2	<2	---	---	---	
meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	---	---	---	
ortho-Xylene	95-47-6	2	µg/L	<2	<2	---	---	---	
EP070S:TPH Surrogates - Speciation									
2-Fluorobiphenyl	321-60-8	0.1	%	---	---	---	80.1	81.2	
2-Bromonaphthalene	580-13-2	0.1	%	---	---	---	64.4	56.9	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	---	---	95.7	99.7	89.8	
Toluene-D8	2037-26-5	0.1	%	---	---	92.5	102	95.4	
4-Bromofluorobenzene	460-00-4	0.1	%	---	---	93.3	93.6	91.6	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%	---	---	32.7	43.2	35.0	
2-Chlorophenol-D4	93951-73-6	0.1	%	---	---	86.3	98.8	75.4	
2,4,6-Tribromophenol	118-79-6	0.1	%	---	---	93.5	108	104	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%	---	---	95.3	99.9	78.0	
Anthracene-d10	1719-06-8	0.1	%	---	---	83.0	108	93.3	
4-Terphenyl-d14	1718-51-0	0.1	%	---	---	92.0	110	87.7	



Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER				Client sample ID					
				Client sampling date / time					
Compound	CAS Number	LOR	Unit	MW01	MW02	MW03	MW04	MW05	
				02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	
				EB0908932-001	EB0908932-002	EB0908932-003	EB0908932-004	EB0908932-005	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	96.8	99.6	99.5	104	93.6	
Toluene-D8	2037-26-5	0.1	%	96.8	99.7	95.3	105	98.3	
4-Bromofluorobenzene	460-00-4	0.1	%	94.2	96.8	93.3	102	99.5	

RTI DL RELEASE - EHP



Page : 8 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Analytical Results

Sub-Matrix: WATER

Compound		Client sample ID		Client sampling date / time		MW06		MW07		MW08		MW09		DUP05	
		CAS Number	LOR	Unit		02-JUN-2009 15:00	EB0908932-006	02-JUN-2009 15:00	EB0908932-007	02-JUN-2009 15:00	EB0908932-008	02-JUN-2009 15:00	EB0908932-009	02-JUN-2009 15:00	EB0908932-010
EG020F: Dissolved Metals by ICP-MS															
Arsenic		7440-38-2	0.001	mg/L		0.025		0.002		0.018		0.001		0.026	
Cadmium		7440-43-9	0.0001	mg/L		<0.0001		<0.0001		<0.0001		0.0001		<0.0001	
Chromium		7440-47-3	0.001	mg/L		<0.001		<0.001		0.004		<0.001		<0.001	
Copper		7440-50-8	0.001	mg/L		<0.001		<0.001		<0.001		0.001		<0.001	
Lead		7439-92-1	0.001	mg/L		<0.001		<0.001		<0.001		0.001		<0.001	
Nickel		7440-02-0	0.001	mg/L		0.013		0.019		0.017		0.002		0.014	
Zinc		7440-66-6	0.005	mg/L		0.038		0.010		0.012		0.042		0.039	
EG035F: Dissolved Mercury by FIMS															
Mercury		7439-97-6	0.0001	mg/L		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001	
EK055G: Ammonia as N by Discrete Analyser															
Ammonia as N		7664-41-7	0.01	mg/L		50.4		119		92.6		0.50		---	
EP070: Total Petroleum Hydrocarbons - Speciation															
Aliphatic C10-C14		---	50	µg/L		---		<50		---		---		---	
Aliphatic C15-C28		---	100	µg/L		---		<100		---		---		---	
Aliphatic C29-C36		---	50	µg/L		---		<50		---		---		---	
Aromatic C10-C14		---	50	µg/L		---		<50		---		---		---	
Aromatic C15-C28		---	100	µg/L		---		<100		---		---		---	
Aromatic C29-C36		---	50	µg/L		---		<50		---		---		---	
EP074A: Monocyclic Aromatic Hydrocarbons															
Benzene		71-43-2	5	µg/L		<5		<5		<5		<5		---	
Toluene		108-88-3	5	µg/L		7		<5		<5		<5		---	
Ethylbenzene		100-41-4	5	µg/L		<5		<5		8		<5		---	
meta- & para-Xylene		108-38-3 106-42-3	5	µg/L		<5		<5		9		<5		---	
Styrene		100-42-5	5	µg/L		<5		<5		<5		<5		---	
ortho-Xylene		95-47-6	5	µg/L		<5		<5		<5		<5		---	
Isopropylbenzene		98-82-8	5	µg/L		<5		<5		<5		<5		---	
n-Propylbenzene		103-65-1	5	µg/L		<5		<5		<5		<5		---	
1,3,5-Trimethylbenzene		108-67-8	5	µg/L		<5		<5		<5		<5		---	
sec-Butylbenzene		135-98-8	5	µg/L		<5		<5		<5		<5		---	
1,2,4-Trimethylbenzene		95-63-6	5	µg/L		<5		<5		17		<5		---	
tert-Butylbenzene		98-06-6	5	µg/L		<5		<5		<5		<5		---	
p-Isopropyltoluene		99-87-6	5	µg/L		<5		<5		29		<5		---	
n-Butylbenzene		104-51-8	5	µg/L		<5		<5		<5		<5		---	
EP074B: Oxygenated Compounds															
Vinyl Acetate		108-05-4	50	µg/L		<50		<50		<50		<50		---	
2-Butanone (MEK)		78-93-3	50	µg/L		<50		<50		<50		<50		---	
4-Methyl-2-pentanone (MIBK)		108-10-1	50	µg/L		<50		<50		<50		<50		---	



Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER			Client sample ID		Client sampling date / time		Unit		MW06		MW07		MW08		MW09		DUP05		
Compound			CAS Number	LOR	Unit	02-JUN-2009 15:00		EB0908932-006		02-JUN-2009 15:00		EB0908932-007		02-JUN-2009 15:00		EB0908932-009		02-JUN-2009 15:00	
EP074B: Oxygenated Compounds - Continued																			
2-Hexanone (MBK)			591-78-6	50	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
EP074C: Sulfonated Compounds																			
Carbon disulfide			75-15-0	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
EP074D: Fumigants																			
2,2-Dichloropropane			594-20-7	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,2-Dichloropropane			78-87-5	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
cis-1,3-Dichloropropylene			10061-01-5	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
trans-1,3-Dichloropropylene			10061-02-6	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,2-Dibromoethane (EDB)			106-93-4	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
EP074E: Halogenated Aliphatic Compounds																			
Dichlorodifluoromethane			75-71-8	50	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Chloromethane			74-87-3	50	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Vinyl chloride			75-01-4	50	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Bromomethane			74-83-9	50	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Chloroethane			75-00-3	50	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Trichlorofluoromethane			75-69-4	50	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
1,1-Dichloroethene			75-35-4	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Iodomethane			74-88-4	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
trans-1,2-Dichloroethene			156-60-5	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1-Dichloroethane			75-34-3	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
cis-1,2-Dichloroethene			156-59-2	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1,1-Trichloroethane			71-55-6	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1-Dichloropropylene			563-58-6	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Carbon Tetrachloride			56-23-5	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,2-Dichloroethane			107-06-2	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Trichloroethene			79-01-6	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Dibromomethane			74-95-3	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1,2-Trichloroethane			79-00-5	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,3-Dichloropropane			142-28-9	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Tetrachloroethene			127-18-4	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1,1,2-Tetrachloroethane			630-20-6	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
trans-1,4-Dichloro-2-butene			110-57-6	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
cis-1,4-Dichloro-2-butene			1476-11-5	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1,2,2-Tetrachloroethane			79-34-5	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,2,3-Trichloropropane			96-18-4	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Pentachloroethane			76-01-7	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,2-Dibromo-3-chloropropane			96-12-8	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Hexachlorobutadiene			87-68-3	5	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	



Page : 10 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		MW06		MW07		MW08		MW09		DUP05	
		CAS Number		LOR		Unit		02-JUN-2009 15:00		02-JUN-2009 15:00		02-JUN-2009 15:00		02-JUN-2009 15:00	
Compound								EB0908932-006		EB0908932-007		EB0908932-008		EB0908932-010	
EP074F: Halogenated Aromatic Compounds															
Chlorobenzene	108-90-7	5	µg/L					<5	7			<5		<5	---
Bromobenzene	108-86-1	5	µg/L					<5	<5			<5		<5	---
2-Chlorotoluene	95-49-8	5	µg/L					<5	<5			<5		<5	---
4-Chlorotoluene	106-43-4	5	µg/L					<5	<5			<5		<5	---
1,3-Dichlorobenzene	541-73-1	5	µg/L					<5	<5			<5		<5	---
1,4-Dichlorobenzene	106-46-7	5	µg/L				9	<5	15			<5		<5	---
1,2-Dichlorobenzene	95-50-1	5	µg/L					<5	<5			<5		<5	---
1,2,4-Trichlorobenzene	120-82-1	5	µg/L					<5	<5			<5		<5	---
1,2,3-Trichlorobenzene	87-61-6	5	µg/L					<5	<5			<5		<5	---
EP074G: Trihalomethanes															
Chloroform	67-66-3	5	µg/L					<5	<5			<5		<5	---
Bromodichloromethane	75-27-4	5	µg/L					<5	<5			<5		<5	---
Dibromochloromethane	124-48-1	5	µg/L					<5	<5			<5		<5	---
Bromoform	75-25-2	5	µg/L					<5	<5			<5		<5	---
EP074H: Naphthalene															
Naphthalene	91-20-3	7	µg/L					20	14			<7		<7	---
EP075(SIM)A: Phenolic Compounds															
Phenol	108-95-2	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
2-Chlorophenol	95-57-8	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
2-Methylphenol	95-48-7	1.0	µg/L					2.0	<1.0			<1.0		<1.0	---
3- & 4-Methylphenol	1319-77-3	2.0	µg/L					<2.0	<2.0			<2.0		<2.0	---
2-Nitrophenol	88-75-5	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
2,4-Dimethylphenol	105-67-9	1.0	µg/L					1.2	<1.0			<1.0		<1.0	---
2,4-Dichlorophenol	120-83-2	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
2,6-Dichlorophenol	87-65-0	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
4-Chloro-3-Methylphenol	59-50-7	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
2,4,6-Trichlorophenol	88-06-2	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
2,4,5-Trichlorophenol	95-95-4	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
Pentachlorophenol	87-86-5	2.0	µg/L					<2.0	<2.0			<2.0		<2.0	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons															
Naphthalene	91-20-3	1.0	µg/L					8.1	5.8			1.8		<1.0	---
Acenaphthylene	208-96-8	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
Acenaphthene	83-32-9	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
Fluorene	86-73-7	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
Phenanthrene	85-01-8	1.0	µg/L					1.3	<1.0			<1.0		<1.0	---
Anthracene	120-12-7	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
Fluoranthene	206-44-0	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---
Pyrene	129-00-0	1.0	µg/L					<1.0	<1.0			<1.0		<1.0	---



Page : 11 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER			Client sample ID		Client sampling date / time				
Compound	CAS Number	LOR	Unit	MW06	MW07	MW08	MW09	DUP05	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	---	
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	---	
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	---	
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	---	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	---	
Indeno(1,2,3-cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	---	
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	---	
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	---	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	20	µg/L	49	30	40	<20	40	
C10 - C14 Fraction	---	50	µg/L	---	140	---	---	---	
C10 - C14 Fraction	---	50	µg/L	---	---	310	<50	590	
C15 - C28 Fraction	---	100	µg/L	---	300	---	---	---	
C15 - C28 Fraction	---	100	µg/L	---	---	700	<100	1100	
C29 - C36 Fraction	---	50	µg/L	---	<50	---	---	---	
C29 - C36 Fraction	---	50	µg/L	---	---	240	<50	120	
EP080: BTEX									
Benzene	71-43-2	1	µg/L	---	---	---	---	2	
Toluene	108-88-3	2	µg/L	---	---	---	---	7	
Ethylbenzene	100-41-4	2	µg/L	---	---	---	---	2	
meta- & para-Xylene	108-38-3	2	µg/L	---	---	---	---	2	
ortho-Xylene	95-47-6	2	µg/L	---	---	---	---	<2	
EP070S:TPH Surrogates - Speciation									
2-Fluorobiphenyl	321-60-8	0.1	%	---	80.5	---	---	---	
2-Bromonaphthalene	580-13-2	0.1	%	---	62.1	---	---	---	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	95.2	89.5	93.0	98.9	---	
Toluene-D8	2037-26-5	0.1	%	104	97.2	99.9	100	---	
4-Bromofluorobenzene	460-00-4	0.1	%	97.1	88.5	95.1	90.3	---	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%	42.5	29.7	20.1	31.6	---	
2-Chlorophenol-D4	93951-73-6	0.1	%	97.7	87.0	49.9	87.0	---	
2,4,6-Tribromophenol	118-79-6	0.1	%	118	119	53.8	93.2	---	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%	90.8	94.8	52.4	96.5	---	
Anthracene-d10	1719-06-8	0.1	%	104	103	51.8	88.8	---	
4-Terphenyl-d14	1718-51-0	0.1	%	103	107	53.5	95.6	---	

Page : 12 of 17
 Work Order : EB0908932
 Client : SINCLAIR KNIGHT MERZ
 Project : ----



Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER	Client sample ID		Client sampling date / time		CAS Number	LOR	Unit	MW06	MW07	MW08	MW09	DUP05
								02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
EB0908932-006												
EB0908932-007												
EB0908932-008												
EB0908932-009												
EB0908932-010												
EP080S: TPH(V)/BTEX Surrogates												
1,2-Dichloroethane-D4	17060-07-0	0.1	%	99.7	93.0	96.2	103	95.6				
Toluene-D8	2037-26-5	0.1	%	108	100	103	103	100				
4-Bromofluorobenzene	460-00-4	0.1	%	106	96.1	103	98.1	98.7				



Page : 13 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Analytical Results

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		MWA (CR13)		MWB (CR14)		MWC (CR15)		Drain	
		CAS Number	LOR	Unit		EB0908932-011		EB0908932-012		EB0908932-013		EB0908932-014	
EG020F: Dissolved Metals by ICP-MS													
Arsenic		7440-38-2	0.001	mg/L		0.022		0.002		0.002		0.001	
Cadmium		7440-43-9	0.001	mg/L		<0.001		<0.001		0.0003		<0.0001	
Chromium		7440-47-3	0.001	mg/L		<0.001		<0.001		<0.001		<0.001	
Copper		7440-50-8	0.001	mg/L		<0.001		0.002		0.001		0.003	
Lead		7439-92-1	0.001	mg/L		<0.001		<0.001		0.002		<0.001	
Nickel		7440-02-0	0.001	mg/L		0.001		0.002		0.003		0.001	
Zinc		7440-66-6	0.005	mg/L		0.016		0.015		0.070		0.173	
EG035F: Dissolved Mercury by FIMS													
Mercury		7439-97-6	0.001	mg/L		<0.0001		<0.0001		<0.0001		<0.0001	
EK055G: Ammonia as N by Discrete Analyser													
Ammonia as N		7664-41-7	0.01	mg/L		9.79		---		---		4.21	
EP074A: Monocyclic Aromatic Hydrocarbons													
Benzene		71-43-2	5	µg/L		<5		---		---		<5	
Toluene		108-88-3	5	µg/L		<5		---		---		<5	
Ethylbenzene		100-41-4	5	µg/L		<5		---		---		<5	
meta- & para-Xylene		108-38-3 106-42-3	5	µg/L		<5		---		---		<5	
Styrene		100-42-5	5	µg/L		<5		---		---		<5	
ortho-Xylene		95-47-6	5	µg/L		<5		---		---		<5	
Isopropylbenzene		98-82-8	5	µg/L		<5		---		---		<5	
n-Propylbenzene		103-65-1	5	µg/L		<5		---		---		<5	
1,3,5-Trimethylbenzene		108-67-8	5	µg/L		<5		---		---		<5	
sec-Butylbenzene		135-98-8	5	µg/L		<5		---		---		<5	
1,2,4-Trimethylbenzene		95-63-6	5	µg/L		<5		---		---		<5	
tert-Butylbenzene		98-06-6	5	µg/L		<5		---		---		<5	
p-Isopropyltoluene		99-87-6	5	µg/L		<5		---		---		<5	
n-Butylbenzene		104-51-8	5	µg/L		<5		---		---		<5	
EP074B: Oxygenated Compounds													
Vinyl Acetate		108-05-4	50	µg/L		<50		---		---		<50	
2-Butanone (MEK)		78-93-3	50	µg/L		<50		---		---		<50	
4-Methyl-2-pentanone (MIBK)		108-10-1	50	µg/L		<50		---		---		<50	
2-Hexanone (MBK)		581-78-6	50	µg/L		<50		---		---		<50	
EP074C: Sulfonated Compounds													
Carbon disulfide		75-15-0	5	µg/L		<5		---		---		<5	
EP074D: Fumigants													
2,2-Dichloropropane		594-20-7	5	µg/L		<5		---		---		<5	
1,2-Dichloropropane		78-87-5	5	µg/L		<5		---		---		<5	
cis-1,3-Dichloropropylene		10061-01-5	5	µg/L		<5		---		---		<5	



Page : 14 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Analytical Results

Sub-Matrix: WATER

Compound	Client sample ID				Client sampling date / time			
	CAS Number	LOR	Unit		MWA (CR13)	MWB (CR14)	MWC (CR15)	Drain
EP074D: Fumigants - Continued								
trans-1,3-Dichloropropylene	10061-02-6	5	µg/L		<5			<5
1,2-Dibromoethane (EDB)	106-93-4	5	µg/L		<5			<5
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	50	µg/L		<50			<50
Chloromethane	74-87-3	50	µg/L		<50			<50
Vinyl chloride	75-01-4	50	µg/L		<50			<50
Bromomethane	74-83-9	50	µg/L		<50			<50
Chloroethane	75-00-3	50	µg/L		<50			<50
Trichlorofluoromethane	75-69-4	50	µg/L		<50			<50
1,1-Dichloroethene	75-35-4	5	µg/L		<5			<5
Iodomethane	74-88-4	5	µg/L		<5			<5
trans-1,2-Dichloroethene	156-60-5	5	µg/L		<5			<5
1,1-Dichloroethane	75-34-3	5	µg/L		<5			<5
cis-1,2-Dichloroethene	156-59-2	5	µg/L		<5			<5
1,1,1-Trichloroethane	71-55-6	5	µg/L		<5			<5
1,1-Dichloropropylene	563-58-6	5	µg/L		<5			<5
Carbon Tetrachloride	58-23-5	5	µg/L		<5			<5
1,2-Dichloroethane	107-06-2	5	µg/L		<5			<5
Trichloroethene	79-01-6	5	µg/L		<5			<5
Dibromomethane	74-95-3	5	µg/L		<5			<5
1,1,2-Trichloroethane	79-00-5	5	µg/L		<5			<5
1,3-Dichloropropane	142-28-9	5	µg/L		<5			<5
Tetrachloroethene	127-18-4	5	µg/L		<5			<5
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L		<5			<5
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L		<5			<5
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L		<5			<5
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L		<5			<5
1,2,3-Trichloropropane	96-18-4	5	µg/L		<5			<5
Pentachloroethane	76-01-7	5	µg/L		<5			<5
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L		<5			<5
Hexachlorobutadiene	87-68-3	5	µg/L		<5			<5
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90-7	5	µg/L		<5			<5
Bromobenzene	108-86-1	5	µg/L		<5			<5
2-Chlorotoluene	95-49-8	5	µg/L		<5			<5
4-Chlorotoluene	106-43-4	5	µg/L		<5			<5
1,3-Dichlorobenzene	541-73-1	5	µg/L		<5			<5
1,4-Dichlorobenzene	106-46-7	5	µg/L		<5			<5



Page : 15 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		MWA (CR13)		MWB (CR14)		MWC (CR15)		Drain		
Compound		CAS Number	LOR	Unit	Client sampling date / time		MWA (CR13)		MWB (CR14)		MWC (CR15)		Drain	
EP074F: Halogenated Aromatic Compounds - Continued														
1,2-Dichlorobenzene		95-50-1	5	µg/L			<5						<5	
1,2,4-Trichlorobenzene		120-82-1	5	µg/L			<5						<5	
1,2,3-Trichlorobenzene		87-61-6	5	µg/L			<5						<5	
EP074G: Trihalomethanes														
Chloroform		67-86-3	5	µg/L			<5						<5	
Bromodichloromethane		75-27-4	5	µg/L			<5						<5	
Dibromochloromethane		124-48-1	5	µg/L			<5						<5	
Bromoform		75-25-2	5	µg/L			<5						<5	
EP074H: Naphthalene														
Naphthalene		91-20-3	7	µg/L			<7						<7	
EP075(SIM)A: Phenolic Compounds														
Phenol		108-95-2	1.0	µg/L			<1.0						<1.0	
2-Chlorophenol		95-57-8	1.0	µg/L			<1.0						<1.0	
2-Methylphenol		95-48-7	1.0	µg/L			<1.0						<1.0	
3- & 4-Methylphenol		1319-77-3	2.0	µg/L			<2.0						<2.0	
2-Nitrophenol		88-75-5	1.0	µg/L			<1.0						<1.0	
2,4-Dimethylphenol		105-67-9	1.0	µg/L			<1.0						<1.0	
2,4-Dichlorophenol		120-83-2	1.0	µg/L			<1.0						<1.0	
2,6-Dichlorophenol		87-65-0	1.0	µg/L			<1.0						<1.0	
4-Chloro-3-Methylphenol		59-50-7	1.0	µg/L			<1.0						<1.0	
2,4,6-Trichlorophenol		88-06-2	1.0	µg/L			<1.0						<1.0	
2,4,5-Trichlorophenol		95-95-4	1.0	µg/L			<1.0						<1.0	
Pentachlorophenol		87-86-5	2.0	µg/L			<2.0						<2.0	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons														
Naphthalene		91-20-3	1.0	µg/L			<1.0						<1.0	
Acenaphthylene		208-96-8	1.0	µg/L			<1.0						<1.0	
Acenaphthene		83-32-9	1.0	µg/L			<1.0						<1.0	
Fluorene		86-73-7	1.0	µg/L			<1.0						<1.0	
Phenanthrene		85-01-8	1.0	µg/L			<1.0						<1.0	
Anthracene		120-12-7	1.0	µg/L			<1.0						<1.0	
Fluoranthene		206-44-0	1.0	µg/L			<1.0						<1.0	
Pyrene		129-00-0	1.0	µg/L			<1.0						<1.0	
Benz(a)anthracene		56-55-3	1.0	µg/L			<1.0						<1.0	
Chrysene		218-01-9	1.0	µg/L			<1.0						<1.0	
Benzo(b)fluoranthene		205-99-2	1.0	µg/L			<1.0						<1.0	
Benzo(k)fluoranthene		207-08-9	1.0	µg/L			<1.0						<1.0	
Benzo(a)pyrene		50-32-8	0.5	µg/L			<0.5						<0.5	
Indeno(1,2,3-cd)pyrene		193-39-5	1.0	µg/L			<1.0						<1.0	



Page : 16 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER			Client sample ID		Client sampling date / time		Client sampling date / time	
Compound	CAS Number	LOR	Unit	MWA (CR13)	MWB (CR14)	MWC (CR15)	Drain	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	----	----	<1.0	
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	----	----	<1.0	
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	<20	
C10 - C14 Fraction	----	50	µg/L	<50	<50	<50	<50	
C15 - C28 Fraction	----	100	µg/L	400	<100	<100	<100	
C29 - C36 Fraction	----	50	µg/L	110	<50	90	<50	
EP080: BTEX								
Benzene	71-43-2	1	µg/L	----	<1	<1	----	
Toluene	108-88-3	2	µg/L	----	<2	<2	----	
Ethylbenzene	100-41-4	2	µg/L	----	<2	<2	----	
meta- & para-Xylene	108-38-3	2	µg/L	----	<2	<2	----	
ortho-Xylene	95-47-6	2	µg/L	----	<2	<2	----	
EP074S: VOC Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	99.4	----	----	106	
Toluene-D8	2037-26-5	0.1	%	95.5	----	----	101	
4-Bromofluorobenzene	460-00-4	0.1	%	89.1	----	----	91.8	
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	34.8	----	----	33.8	
2-Chlorophenol-D4	93951-73-6	0.1	%	89.8	----	----	85.9	
2,4,6-Tribromophenol	118-79-6	0.1	%	101	----	----	90.0	
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	96.4	----	----	92.8	
Anthracene-d10	1719-06-8	0.1	%	89.4	----	----	88.3	
4-Terphenyl-d14	1718-51-0	0.1	%	96.5	----	----	95.5	
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	103	110	99.5	110	
Toluene-D8	2037-26-5	0.1	%	98.1	104	96.2	104	
4-Bromofluorobenzene	460-00-4	0.1	%	96.7	103	93.3	99.8	



Page : 17 of 17
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP0705: TPH Surrogates - Speciation			
2-Fluorobiphenyl	321-60-8	60	140
2-Bromonaphthalene	580-13-2	80	140
EP0745: VOC Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	120
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	94
2-Chlorophenol-D4	93951-73-6	23	134
2,4,6-Tribromophenol	118-79-6	10	123
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	43	116
Anthracene-d10	1719-06-8	27	133
4-Terphenyl-d14	1718-51-0	33	141
EP0805: TPH(V)/BTX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	120
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115



Environmental Division

QUALITY CONTROL REPORT

Work Order	: EB0908932	Page	: 1 of 15
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Kilmister
Address	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 4004	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: ---	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park	Date Samples Received	: 03-JUN-2009
C-O-C number	: ---	Issue Date	: 12-JUN-2009
Sampler	: ---	No. of samples received	: 14
Order number	: ---	No. of samples analysed	: 14
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Matthew Goodwin	Senior Organic Chemist	Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics
Xingbin Lin	Instrument Chemist	Organics

Environmental Division Brisbane

Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Work Order : 2 of 15
Client : EB0908932
Project : SINCLAIR KNIGHT MERZ
: ---

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :

Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
= Indicates failed QC



Page : 3 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

13-054

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: WATER

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report									
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)		
EG020F: Dissolved Metals by ICP-MS (QC Lot: 1002635)											
EB0908954-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit		
		EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
EB0908954-010	Anonymous	EG020A-F: Chromium	7440-50-8	0.001	mg/L	0.025	0.090	# 113	0% - 20%		
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.006	0.006	0.0	No Limit		
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.028	0.036	25.1	No Limit		
		EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.0001	0.0	No Limit		
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.002	0.001	0.0	No Limit		
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
EB0908932-008	MW08	EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.002	0.0	No Limit		
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit		
		EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.018	0.017	6.2	0% - 50%		
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	0.004	0.004	0.0	No Limit		
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.017	0.018	0.0	0% - 50%		
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.012	0.013	0.0	No Limit		
		EG035F: Dissolved Mercury by FIMS (QC Lot: 1002634)									
EB0908954-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
EB0908954-010	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
EG035F: Dissolved Mercury by FIMS (QC Lot: 1003846)											
EB0908926-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
EB0908928-014	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		



Order : 4 of 15
Client : EB0908932
Project : SINCLAIR KNIGHT MERZ

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report									
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)		
EG035F: Dissolved Mercury by FIMS (QC Lot: 1003849)											
EB0908932-002	MW02	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
EB0908932-013	MWC (CR15)	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 1002596)											
EB0908818-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	15.6	18.8	18.6	0% - 20%		
EB0908818-011	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.43	0.43	0.0	0% - 20%		
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 1003437)											
EB0908859-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	1.21	1.16	4.2	0% - 20%		
EB0908901-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.83	0.75	10.6	0% - 20%		
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 1003439)											
EB0908932-003	MW03	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.08	155	No Limit		
EB0909039-003	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0	No Limit		
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1002578)											
EB0908932-003	MW03	EP074: Benzene	71-43-2	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Toluene	108-88-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: meta- & para-Xylene	106-38-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Styrene	100-42-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Isopropylbenzene	98-82-8	5	µg/L	<5	<5	0.0	No Limit		
		EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,3,5-Trimethylbenzene	108-67-8	5	µg/L	<5	<5	0.0	No Limit		
		EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2,4-Trimethylbenzene	95-63-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: p-Isopropyltoluene	99-87-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Benzene	71-43-2	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Toluene	108-88-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: meta- & para-Xylene	108-38-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Styrene	106-42-3								
		EP074: ortho-Xylene	100-42-5	5	µg/L	<5	<5	0.0	<5	0.0	No Limit
		EP074: Isopropylbenzene	95-47-6	5	µg/L	<5	<5	0.0	<5	0.0	No Limit
		EP074: n-Propylbenzene	98-82-8	5	µg/L	<5	<5	0.0	<5	0.0	No Limit
		EP074: 1,3,5-Trimethylbenzene	103-65-1	5	µg/L	<5	<5	0.0	<5	0.0	No Limit
		EP074: 1,3,5-Trimethylbenzene	108-67-8	5	µg/L	<5	<5	0.0	<5	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	<5	0.0	<5	0.0	No Limit
EP074: 1,2,4-Trimethylbenzene	95-63-6	5	µg/L	<5	<5	0.0	<5	0.0	No Limit		



Sub-Matrix: WATER			Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)		
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1002578) - continued											
EB0908953-004	Anonymous	EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: p-Isopropyltoluene	99-87-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	<5	0.0	No Limit		
EP074B: Oxygenated Compounds (QC Lot: 1002578)											
EB0908932-003	MW03	EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	<50	0.0	No Limit		
		EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0	No Limit		
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	0.0	No Limit		
		EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	<50	0.0	No Limit		
		EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	<50	0.0	No Limit		
		EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0	No Limit		
EB0908953-004	Anonymous	EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	0.0	No Limit		
		EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	<50	0.0	No Limit		
EP074C: Sulfonated Compounds (QC Lot: 1002578)											
EB0908932-003	MW03	EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	0.0	No Limit		
EB0908953-004	Anonymous	EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	0.0	No Limit		
EP074D: Fumigants (QC Lot: 1002578)											
EB0908932-003	MW03	EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	0.0	No Limit		
		EB0908953-004	Anonymous								
		EP074E: Halogenated Aliphatic Compounds (QC Lot: 1002578)									
EB0908932-003	MW03	EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Iodomethane	74-88-4	5	µg/L	<5	<5	0.0	No Limit		
		EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1-Dichloroethane	75-34-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1,1-Trichloroethane	71-55-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Trichloroethene	79-01-6	5	µg/L	<5	<5	0.0	No Limit		
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	0.0	No Limit		
		EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	<5	0.0	No Limit		



Page : 6 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Sub-Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Laboratory Duplicate (DUP) Report			Recovery Limits (%)
						Original Result	Duplicate Result	RPD (%)	
EB0908932-003	MW03	EP074E: Halogenated Aliphatic Compounds (QC Lot: 1002578) - continued							
		EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	<5	0.0	No Limit
		EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: Hexachlorobutadiene	87-68-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloromethane	74-87-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: Vinyl chloride	75-01-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: Bromomethane	74-83-9	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Iodomethane	74-83-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1-Dichloroethane	75-34-3	5	µg/L	<5	<5	0.0	No Limit
EB0908953-004	Anonymous	EP074: cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,1-Trichloroethane	71-55-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	<5	0.0	No Limit
		EP074: Trichloroethene	79-01-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	<5	0.0	No Limit
		EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: Hexachlorobutadiene	87-68-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloromethane	74-87-3	50	µg/L	<50	<50	0.0	No Limit



Page : 7 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

13-054

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1002578) - continued									
EB0908953-004	Anonymous	EP074: Vinyl chloride	75-01-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: Bromomethane	74-83-9	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	0.0	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 1002578)									
EB0908932-003	MW03	EP074: Chlorobenzene	108-90-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromobenzene	108-86-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Chlorobenzene	108-90-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromobenzene	108-86-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	0.0	No Limit
EB0908953-004	Anonymous	EP074: 1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Chloroform	67-66-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0	No Limit
EP074G: Trihalomethanes (QC Lot: 1002578)									
EB0908932-003	MW03	EP074: Chloroform	67-66-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromoform	75-25-2	5	µg/L	<5	<5	0.0	No Limit
EB0908953-004	Anonymous	EP074: Chloroform	67-66-3	5	µg/L	30	31	0.0	No Limit
		EP074: Bromodichloromethane	75-27-4	5	µg/L	17	17	0.0	No Limit
		EP074: Dibromochloromethane	124-48-1	5	µg/L	7	7	0.0	No Limit
		EP074: Bromoform	75-25-2	5	µg/L	<5	<5	0.0	No Limit
EP074H: Naphthalene (QC Lot: 1002578)									
EB0908932-003	MW03	EP074: Naphthalene	91-20-3	7	µg/L	<7	<7	0.0	No Limit
EB0908953-004	Anonymous	EP074: Naphthalene	91-20-3	7	µg/L	<7	<7	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1002577)									
EB0908932-003	MW03	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.0	No Limit
EB0908953-004	Anonymous	EP080: C6 - C9 Fraction	---	20	µg/L	30	30	0.0	No Limit
EP080: BTEX (QC Lot: 1002577)									

DL Documents

Page 157 of 226



Page : 8 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080: BTEX (QC Lot: 1002577) - continued EB0908932-003	MW03	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
			106-42-3						
EB0908953-004	Anonymous	EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit



Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: WATER

Sub-Matrix: WATER			Method Blank (MB) Report		Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)
						LCS	Low	
EG020F: Dissolved Metals by ICP-MS (QCLot: 1002635)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	94.8	80	124
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.100 mg/L	102	89	117
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	107	85	127
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	102	85	119
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	102	88	116
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	104	85	119
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	108	86	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 1003848)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	97.2	80	124
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.100 mg/L	98.6	89	117
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	107	85	127
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	102	85	119
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	96.9	88	116
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	98.5	85	119
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	108	86	130
EG035F: Dissolved Mercury by FIMS (QCLot: 1002634)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.010 mg/L	109	81	115
EG035F: Dissolved Mercury by FIMS (QCLot: 1003846)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.010 mg/L	99.5	81	115
EG035F: Dissolved Mercury by FIMS (QCLot: 1003849)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.010 mg/L	98.6	81	115
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1002596)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	81.4	70	128
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1003437)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	80.0	70	128
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1003439)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	87.8	70	128
EP070: Total Petroleum Hydrocarbons - Speciation (QCLot: 1006014)								
EP070: Aliphatic C10-C14	----	50	µg/L	<50	8370 µg/L	70.6	70	130
EP070: Aliphatic C15-C28	----	100	µg/L	<100	17280 µg/L	85.9	70	130
EP070: Aliphatic C29-C36	----	50	µg/L	<50	----	----	----	----
EP070: Aromatic C10-C14	----	50	µg/L	<50	1392 µg/L	125	70	130
EP070: Aromatic C15-C28	----	100	µg/L	<100	2352 µg/L	122	70	130



Page : 10 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : *****

Sub-Matrix: WATER

Sub-Matrix: WATER				Laboratory Control Spike (LCS) Report				
Method: Compound				Method Blank (MB) Report	Spike Concentration	Recovery Limits (%)		
CAS Number	LOR	Unit	Spike Recovery (%)			Low	High	
EP070: Total Petroleum Hydrocarbons - Speciation (QCLot: 1006014) - continued								
EP070: Aromatic C29-C36	50	µg/L	<50	---	---	---		
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1002578)								
EP074: Benzene	71-43-2	5	µg/L	<5	10 µg/L	94.9	75	122
EP074: Toluene	108-88-4	5	µg/L	<5	10 µg/L	95.1	71.2	124
EP074: Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	96.5	76	120
EP074: meta- & para-Xylene	108-38-3	5	µg/L	<5	20 µg/L	87.6	68	132
	106-42-3							
EP074: Styrene	100-42-5	5	µg/L	<5	10 µg/L	96.6	68	127
EP074: ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.2	76	122
EP074: Isopropylbenzene	98-82-8	5	µg/L	<5	10 µg/L	95.2	74	123
EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	10 µg/L	94.2	70	125
EP074: 1,3,5-Trimethylbenzene	108-67-8	5	µg/L	<5	10 µg/L	94.9	74	121
EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	10 µg/L	100	72	124
EP074: 1,2,4-Trimethylbenzene	95-63-6	5	µg/L	<5	10 µg/L	93.6	73.5	124
EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	10 µg/L	98.0	71.6	128
EP074: p-Isopropyltoluene	99-87-6	5	µg/L	<5	10 µg/L	95.1	68.3	130
EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	10 µg/L	97.0	67	126
EP074B: Oxygenated Compounds (QCLot: 1002578)								
EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	100 µg/L	93.0	65	147
EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	83.6	54	130
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	100 µg/L	91.2	63	137
EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	100 µg/L	85.7	62	135
EP074C: Sulfonated Compounds (QCLot: 1002578)								
EP074: Carbon disulfide	75-15-0	5	µg/L	<5	10 µg/L	97.0	68	135
EP074D: Fumigants (QCLot: 1002578)								
EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	10 µg/L	100	60.7	143
EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	10 µg/L	102	69.7	128
EP074: cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	20 µg/L	96.4	68	131
EP074: trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	20 µg/L	95.0	67	140
EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	10 µg/L	100	68.1	132
EP074E: Halogenated Aliphatic Compounds (QCLot: 1002578)								
EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	100 µg/L	91.4	52	130
EP074: Chloromethane	74-87-3	50	µg/L	<50	100 µg/L	86.1	43.1	130
EP074: Vinyl chloride	75-01-4	50	µg/L	<50	100 µg/L	108	53	144
EP074: Bromomethane	74-83-9	50	µg/L	<50	100 µg/L	106	57.5	130
EP074: Chloroethane	75-00-3	50	µg/L	<50	100 µg/L	86.9	70	137
EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	100 µg/L	82.4	64	135
EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	10 µg/L	97.1	63.9	135



Page : 11 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

13-054

Sub-Matrix: WATER				Method Blank (MB) Report				Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)	LCS	Low	High	Recovery Limits (%)	
EP074E: Halogenated Aliphatic Compounds (QCLot: 1002578) - continued											
EP074: Iodomethane	74-88-4	5	µg/L	<5	10 µg/L	90.6	57.2	130			
EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	10 µg/L	100	70	128			
EP074: 1,1-Dichloroethane	75-34-6	5	µg/L	<5	10 µg/L	101	64	136			
EP074: cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	10 µg/L	101	71	128			
EP074: 1,1,1-Trichloroethane	71-55-5	5	µg/L	<5	10 µg/L	99.7	68.4	135			
EP074: 1,1-Dichloropropylene	563-58-6	5	µg/L	<5	10 µg/L	95.8	71.4	127			
EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	10 µg/L	95.2	64	134			
EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	10 µg/L	99.9	68	134			
EP074: Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	98.0	72	127			
EP074: Dibromomethane	74-95-3	5	µg/L	<5	10 µg/L	96.6	63.9	136			
EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	10 µg/L	92.7	69.2	133			
EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	10 µg/L	89.1	73.7	130			
EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	103	73.8	132			
EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	10 µg/L	92.6	81	123			
EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	10 µg/L	90.1	26	130			
EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	10 µg/L	88.9	51.1	130			
EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	10 µg/L	102	72	133			
EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	10 µg/L	110	59	148			
EP074: Pentachloroethane	76-01-7	5	µg/L	<5	10 µg/L	101	68	138			
EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	10 µg/L	81.8	52	150			
EP074: Hexachlorobutadiene	87-88-3	5	µg/L	<5	10 µg/L	106	62	142			
EP074F: Halogenated Aromatic Compounds (QCLot: 1002578)											
EP074: Chlorobenzene	108-90-7	5	µg/L	<5	10 µg/L	93.7	77	120			
EP074: Bromobenzene	106-96-1	5	µg/L	<5	10 µg/L	100	76	122			
EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	10 µg/L	99.2	75.3	124			
EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	10 µg/L	95.8	76	120			
EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	10 µg/L	97.0	75.2	120			
EP074: 1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	10 µg/L	95.9	76.1	119			
EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	10 µg/L	92.6	77.7	118			
EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	10 µg/L	93.1	68.3	128			
EP074: 1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	10 µg/L	88.2	75	125			
EP074G: Trihalomethanes (QCLot: 1002578)											
EP074: Chloroform	67-66-3	5	µg/L	<5	10 µg/L	97.9	71.1	127			
EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	96.9	68	132			
EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	10 µg/L	95.9	69	130			
EP074: Bromoform	75-25-2	5	µg/L	<5	10 µg/L	94.7	62	137			
EP074H: Naphthalene (QCLot: 1002578)											
EP074: Naphthalene	91-20-3	7	µg/L	<7	10 µg/L	91.7	83.1	119			
EP075(SIM)A: Phenolic Compounds (QCLot: 1003086)											



Page : 12 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report		Laboratory Control Spike (LCS) Report			
Method: Compound				Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
CAS Number	LOR	Unit	LCS			Low	High		
EP075(SIM)A: Phenolic Compounds (QCLot: 1003086) - continued									
EP075(SIM): Phenol	108-95-2	1	µg/L	<1.0	5 µg/L	31.6		24	70
EP075(SIM): 2-Chlorophenol	95-57-4	1	µg/L	<1.0	5 µg/L	66.2		57	105
EP075(SIM): 2-Methylphenol	95-46-7	1	µg/L	<1.0	5 µg/L	59.0		51	96
EP075(SIM): 3- & 4-Methylphenol	1319-77-8	2	µg/L	<2.0	10 µg/L	60.5		45	94
EP075(SIM): 2-Nitrophenol	88-75-5	1	µg/L	<1.0	5 µg/L	76.6		48	132
EP075(SIM): 2,4-Dimethylphenol	105-67-9	1	µg/L	<1.0	5 µg/L	62.2		44	112
EP075(SIM): 2,4-Dichlorophenol	120-83-2	1	µg/L	<1.0	5 µg/L	73.8		60	114
EP075(SIM): 2,6-Dichlorophenol	87-65-0	1	µg/L	<1.0	5 µg/L	72.3		59	115
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	1	µg/L	<1.0	5 µg/L	72.2		60	117
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	1	µg/L	<1.0	5 µg/L	74.5		59	123
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	1	µg/L	<1.0	5 µg/L	65.4		59	123
EP075(SIM): Pentachlorophenol	87-86-5	2	µg/L	<2.0	10 µg/L	76.4		22.1	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1003086)									
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	60.1		46	111
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	67.3		51	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	60.6		50	114
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	64.1		55	118
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	72.4		54	110
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	70.8		49	117
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	71.8		51	117
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	70.8		51	117
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	75.4		53	120
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	69.0		48	114
EP075(SIM): Benzo(b)fluoranthene	205-99-2	1	µg/L	<1.0	5 µg/L	77.1		48	130
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	65.8		43	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	60.7		44	120
EP075(SIM): Indeno(1,2,3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	65.8		45	129
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	63.0		47	131
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	62.8		42	126
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1002577)									
EP080: C6 - C9 Fraction	----	20	µg/L	<20	160 µg/L	93.3		73	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1003085)									
EP071: C10 - C14 Fraction	----	50	µg/L	<50	600 µg/L	58.7		49	110
EP071: C15 - C28 Fraction	----	100	µg/L	<100	1020 µg/L	68.2		58	130
EP071: C29 - C36 Fraction	----	50	µg/L	<50	----	----		----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1006015)									
EP071-HX: C10 - C14 Fraction	----	50	µg/L	<50	798 µg/L	68.9		64	124
EP071-HX: C15 - C28 Fraction	----	100	µg/L	<100	804 µg/L	73.4		70	130
EP071-HX: C29 - C36 Fraction	----	50	µg/L	<50	800 µg/L	72.5		68	128

Page : 13 of 15
 Work Order : EB0908932
 Client : SINCLAIR KNIGHT MERZ
 Project : ***



Sub-Matrix: WATER

Sub-Matrix: WATER				Laboratory Control Spike (LCS) Report				
Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Spike Concentration	Recovery Limits (%)		
						Spike Recovery (%)	Low	High
EP080: BTEX (QCLot: 1002577)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	90.0	77.6	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	92.0	74	122
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	90.4	73	126
EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	20 µg/L	90.6	70.4	129
	106-42-3							
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	91.4	74.3	126



Page : 14 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: WATER

Sub-Matrix: WATER		Matrix Spike (MS) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
					MS		Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 1002635)								
EB0908954-001	Anonymous	EG020A-F: Arsenic	7440-38-2	0.100 mg/L	108		70	130
		EG020A-F: Cadmium	7440-43-9	0.100 mg/L	109		70	130
		EG020A-F: Chromium	7440-47-3	0.100 mg/L	106		70	130
		EG020A-F: Copper	7440-50-8	0.2 mg/L	106		70	130
		EG020A-F: Lead	7439-92-1	0.100 mg/L	107		70	130
		EG020A-F: Nickel	7440-02-0	0.100 mg/L	108		70	130
		EG020A-F: Zinc	7440-66-6	0.2 mg/L	123		70	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 1003848)								
EB0908929-015	Anonymous	EG020A-F: Arsenic	7440-38-2	0.100 mg/L	102		70	130
		EG020A-F: Cadmium	7440-43-9	0.100 mg/L	98.0		70	130
		EG020A-F: Chromium	7440-47-3	0.100 mg/L	98.6		70	130
		EG020A-F: Copper	7440-50-8	.2 mg/L	94.0		70	130
		EG020A-F: Lead	7439-92-1	0.100 mg/L	96.5		70	130
		EG020A-F: Nickel	7440-02-0	0.100 mg/L	93.7		70	130
		EG020A-F: Zinc	7440-66-6	.2 mg/L	106		70	130
EG035F: Dissolved Mercury by FIMS (QCLot: 1002634)								
EB0908954-001	Anonymous	EG035F: Mercury	7439-97-6	0.010 mg/L	98.6		70	130
EG035F: Dissolved Mercury by FIMS (QCLot: 1003846)								
EB0908926-002	Anonymous	EG035F: Mercury	7439-97-6	0.010 mg/L	79.7		70	130
EG035F: Dissolved Mercury by FIMS (QCLot: 1003849)								
EB0908932-003	MW03	EG035F: Mercury	7439-97-6	0.010 mg/L	# 65.6		70	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1002596)								
EB0908818-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.4 mg/L	# Not Determined		70	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1003437)								
EB0908859-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.8 mg/L	103		70	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1003439)								
EB0908932-004	MW04	EK055G: Ammonia as N	7664-41-7	0.4 mg/L	# Not Determined		70	130
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1002578)								
EB0908932-004	MW04	EP074: Benzene	71-43-2	10 µg/L	108		70	130
		EP074: Toluene	108-88-3	10 µg/L	101		70	130
EP074E: Halogenated Aliphatic Compounds (QCLot: 1002578)								
EB0908932-004	MW04	EP074: 1,1-Dichloroethene	75-35-4	10 µg/L	128		70	130
		EP074: Trichloroethene	79-01-6	10 µg/L	103		70	130



Page : 15 of 15
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Sub-Matrix: WATER

Sub-Matrix: WATER		Matrix Spike (MS) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike	Spike Recovery (%)		Recovery Limits (%)	
				Concentration	M/S	Low	High	
EP074F: Halogenated Aromatic Compounds (QCLot: 1002578)								
EB0908932-004	MW04	EP074: Chlorobenzene	108-90-7	10 µg/L		106	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1002577)								
EB0908932-004	MW04	EP080/071: C9 Fraction	----	140 µg/L		91.3	70	130
EP080: BTEX (QCLot: 1002577)								
EB0908932-004	MW04	EP080: Benzene	71-43-2	10 µg/L		107	70	130
		EP080: Toluene	108-88-3	10 µg/L		103	70	130



Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: EB0908932	Page	: 1 of 10
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Klimister
Address	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 4004	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: ----	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park	Date Samples Received	: 03-JUN-2009
C-O-C number	: ----	Issue Date	: 12-JUN-2009
Sampler	: ----	No. of samples received	: 14
Order number	: ----	No. of samples analysed	: 14
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days); Mercury (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: WATER

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date		Extraction / Preparation		Analysis	
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Filtered; Lab-acidified MW01, MW03, MW05, MW08, DUP05, MWB (CR14), Drain	MW02, MW04, MW06, MW09, MWA (CR13), MWC (CR15),	---	---	---	10-JUN-2009	29-NOV-2009	✓
Clear Plastic Bottle - Sulphuric Acid MW07		---	---	---	09-JUN-2009	03-JUN-2009	✗
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Filtered; Lab-acidified MW01, MW03, MW05, MW08, DUP05, MWB (CR14), Drain	MW02, MW04, MW06, MW09, MWA (CR13), MWC (CR15),	---	---	---	10-JUN-2009	30-JUN-2009	✓
Clear Plastic Bottle - Sulphuric Acid MW07		---	---	---	09-JUN-2009	16-JUN-2009	✓
EK055G: Ammonia as N by Discrete Analyser							
Amber Glass Bottle - Unpreserved MW07		---	---	---	09-JUN-2009	03-JUN-2009	✗
Clear Plastic Bottle - Sulphuric Acid MW01, MW03, MW05, MW08, MWA (CR13), Drain	MW02, MW04, MW06, MW09, MWA (CR13), MWC (CR15),	---	---	---	09-JUN-2009	30-JUN-2009	✓



Page : 3 of 10
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Matrix: WATER		Evaluation: * = Holding time breach ; ✓ = Within holding time.					
Method	Sample Date	Extraction / Preparation		Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP070: Total Petroleum Hydrocarbons - Speciation							
Amber Glass Bottle - Unpreserved MW04, MW05	02-JUN-2009	09-JUN-2009	09-JUN-2009	✓	12-JUN-2009	21-JUL-2009	✓
Amber Glass Bottle - Unpreserved MW06	02-JUN-2009	11-JUN-2009	09-JUN-2009	*	12-JUN-2009	21-JUL-2009	✓
Amber VOC Vial - HCl or NaHSO4 MW07	02-JUN-2009	09-JUN-2009	09-JUN-2009	✓	12-JUN-2009	21-JUL-2009	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Amber VOC Vial - HCl or NaHSO4 MW03, MW05, MW06, MW08, MWA (CR13), Clear Plastic Bottle - Filtered; Lab-acidified MW07	02-JUN-2009	--	--	---	09-JUN-2009	16-JUN-2009	✓
EP074B: Oxygenated Compounds							
Amber VOC Vial - HCl or NaHSO4 MW03, MW05, MW06, MW08, MWA (CR13), Clear Plastic Bottle - Filtered; Lab-acidified MW07	02-JUN-2009	--	--	---	09-JUN-2009	16-JUN-2009	✓
EP074C: Sulfonated Compounds							
Amber VOC Vial - HCl or NaHSO4 MW03, MW05, MW06, MW08, MWA (CR13), Clear Plastic Bottle - Filtered; Lab-acidified MW07	02-JUN-2009	--	--	---	09-JUN-2009	16-JUN-2009	✓
EP074D: Fumigants							
Amber VOC Vial - HCl or NaHSO4 MW03, MW05, MW06, MW08, MWA (CR13), Clear Plastic Bottle - Filtered; Lab-acidified MW07	02-JUN-2009	--	--	---	09-JUN-2009	16-JUN-2009	✓

Page : 4 of 10
 Work Order : EB0908932
 Client : SINCLAIR KNIGHT MERZ
 Project : ----



Matrix: WATER
 Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method	Container / Client Sample ID(s)	Sample Date	Extraction / Preparation		Analysis	
			Date extracted	Due for extraction	Date analysed	Due for analysis
EP074E: Halogenated Aliphatic Compounds						
Amber VOC Vial - HCl or NaHSO4 MW03, MW05, MW08, MWA (CR13), Clear Plastic Bottle - Filtered; Lab-acidified MW07	MW04, MW06, MW09, Drain	02-JUN-2009	--	--	09-JUN-2009	16-JUN-2009
EP074F: Halogenated Aromatic Compounds						
Amber VOC Vial - HCl or NaHSO4 MW03, MW05, MW08, MWA (CR13), Clear Plastic Bottle - Filtered; Lab-acidified MW07	MW04, MW06, MW09, Drain	02-JUN-2009	--	--	09-JUN-2009	16-JUN-2009
EP074G: Trihalomethanes						
Amber VOC Vial - HCl or NaHSO4 MW03, MW05, MW08, MWA (CR13), Clear Plastic Bottle - Filtered; Lab-acidified MW07	MW04, MW06, MW09, Drain	02-JUN-2009	--	--	09-JUN-2009	16-JUN-2009
EP074H: Naphthalene						
Amber VOC Vial - HCl or NaHSO4 MW03, MW05, MW08, MWA (CR13), Clear Plastic Bottle - Filtered; Lab-acidified MW07	MW04, MW06, MW09, Drain	02-JUN-2009	--	--	09-JUN-2009	16-JUN-2009
EP075(SIM)A: Phenolic Compounds						
Amber Glass Bottle - Unpreserved MW03, MW05, MW07, MW09, Drain	MW04, MW06, MW08, MWA (CR13), Drain	02-JUN-2009	09-JUN-2009	09-JUN-2009	10-JUN-2009	19-JUL-2009



Page : 5 of 10
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ---

Matrix: WATER

Matrix: WATER							
Method		Sample Date	Extraction / Preparation		Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved							
MW04, MW06, MW08, MWA (CR13), Drain		02-JUN-2009	09-JUN-2009	09-JUN-2009	✓	10-JUN-2009	19-JUL-2009
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved							
MW02, MW08, DUP05, MWB (CR14), Drain		02-JUN-2009	09-JUN-2009	09-JUN-2009	✓	10-JUN-2009	19-JUL-2009
MW05		02-JUN-2009	09-JUN-2009	09-JUN-2009	✓	12-JUN-2009	21-JUL-2009
		02-JUN-2009	11-JUN-2009	09-JUN-2009	✗	12-JUN-2009	21-JUL-2009
MW02, MW04, MW06, MW09, MWA (CR13), MWB (CR15), Drain		02-JUN-2009	--	--	---	09-JUN-2009	16-JUN-2009
Amber VOC Vial - HCl or NaHSO4							
MW07		02-JUN-2009	09-JUN-2009	09-JUN-2009	✓	12-JUN-2009	21-JUL-2009
Clear Plastic Bottle - Filtered; Lab-acidified		02-JUN-2009	--	--	---	09-JUN-2009	16-JUN-2009
EP080: BTEX							
Amber VOC Vial - HCl or NaHSO4							
MW01, DUP05, MWB (CR15)		02-JUN-2009	--	--	---	09-JUN-2009	16-JUN-2009



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Method	Count		Rate (%)		Quality Control Specification
Analytical Methods			QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	6	51	11.8	10.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS	EG035F	6	52	11.5	10.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	4	34	11.8	10.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	15	13.3	10.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	2	15	13.3	10.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	3	51	5.9	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS	EG035F	3	52	5.8	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	34	5.9	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	11	9.1	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	14	7.1	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071-HX	1	3	33.3	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Speciation	EP070	1	3	33.3	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	15	6.7	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	15	6.7	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	3	51	5.9	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS	EG035F	3	52	5.8	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	34	5.9	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	11	9.1	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	14	7.1	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071-HX	1	3	33.3	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Speciation	EP070	1	3	33.3	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	15	6.7	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	15	6.7	5.0		NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	3	51	5.9	5.0		ALS QCS3 requirement
Dissolved Mercury by FIMS	EG035F	3	52	5.8	5.0		ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	34	5.9	5.0		ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	15	6.7	5.0		ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	15	6.7	5.0		ALS QCS3 requirement



Page : 7 of 10
 Work Order : EB0908932
 Client : SINCLAIR KNIGHT MERZ
 Project : ---

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Ammonia as N by Discrete analyser	EK055G	WATER	APHA 21st ed., 4500-NH ₃ G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Speciation	EP070	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatle Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatle Fraction	EP071-HX	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Volatile Organic Compounds	EP074	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.



Page : 8 of 10
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Preparation Methods		Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids		ORG14-HX	WATER	Variation of USEPA SW 846 - 3510B: 500 mL to 0.5L of sample is transferred to a separatory funnel and serially extracted three times using 30mL DCM for each extract. The resultant extracts are combined, dehydrated, and exchanged into 5 mL of hexane for analysis. ALS default excludes sediment which may be resident in the container.

RTI DL RELEASE - EHP



Page : 9 of 10
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QW/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: WATER

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG020F: Dissolved Metals by ICP-MS	EB0908954-010	Anonymous	Copper	7440-50-8	113 %	0-20%	RPD exceeds LOR based limits
Matrix Spike (MS) Recoveries							
EG035F: Dissolved Mercury by FIMS	EB0908932-003	MW03	Mercury	7439-97-6	65.6 %	70-130%	Recovery less than lower data quality objective
EK055G: Ammonia as N by Discrete Analyser	EB0908932-004	MW04	Ammonia as N	7664-41-7	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.
EK055G: Ammonia as N by Discrete Analyser	EB0908818-002	Anonymous	Ammonia as N	7664-41-7	Not Determined	---	MS recovery not determined, background level greater than or equal to 4x spike level.

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Laboratory Control outliers occur.

Regular Sample Surrogates

Sub-Matrix: WATER

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP070S:TPH Surrogates - Speciation	EB0908932-005	MW05	2-Bromonaphthalene	560-13-2	56.9 %	60-140 %	Recovery less than lower data quality objective

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

Matrix: WATER

Method Container / Client Sample ID(s)	Extraction / Preparation		Analysis	
	Date extracted	Due for extraction	Date analysed	Due for analysis
EG020F: Dissolved Metals by ICP-MS				
Clear Plastic Bottle - Sulphuric Acid MW07	----	----	09-JUN-2009	03-JUN-2009
EK055G: Ammonia as N by Discrete Analyser				
Amber Glass Bottle - Unpreserved MW07	----	----	09-JUN-2009	03-JUN-2009



Page : 10 of 10
Work Order : EB0908932
Client : SINCLAIR KNIGHT MERZ
Project : ----

Matrix: WATER

Matrix: WATER					
Method					
Container / Client Sample ID(s)					
Extraction / Preparation		Analysis			
Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EP070: Total Petroleum Hydrocarbons - Speciation					
Amber Glass Bottle - Unpreserved					
MW06					
11-JUN-2009	09-JUN-2009	2	---	---	---
EP080/071: Total Petroleum Hydrocarbons					
Amber Glass Bottle - Unpreserved					
MW06					
11-JUN-2009	09-JUN-2009	2	---	---	---

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.

RTI DL RELEASE - EHP



Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EB0908932**

Client : **SINCLAIR KNIGHT MERZ**
Contact : **MS ONA KANAS**
Address : **P O BOX 246**
SPRING HILL QLD, AUSTRALIA 4004

Laboratory : **Environmental Division Brisbane**
Contact : **Tim Kilmister**
Address : **32 Shand Street Stafford QLD Australia**
4053

E-mail : **okanas@skm.com.au**
Telephone : **+61 07 3244 7100**
Facsimile : **+61 07 3244 7306**

E-mail : **Services.Brisbane@alsenviro.com**
Telephone : **+61-7-3243 7222**
Facsimile : **+61-7-3243 7218**

Project : **----**
Order number : **----**
C-O-C number : **----**
Site : **Cronulla Park**
Sampler : **----**

Page : **1 of 3**
Quote number : **ES2009SINKNI0322 (EN/003/09)**
QC Level : **NEPM 1999 Schedule B(3) and ALS**
QOS3 requirement

Dates

Date Samples Received : **03-JUN-2009**
Client Requested Due Date : **12-JUN-2009**

Issue Date : **05-JUN-2009 15:59**
Scheduled Reporting Date : **12-JUN-2009**

Delivery Details

Mode of Delivery : **Carrier**
No. of coolers/boxes : **2 MEDIUM**
Security Seal : **Intact.**

Temperature : **1.2 C, 7.8 C - Ice present**
No. of samples received : **14**
No. of samples analysed : **14**

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Requested Deliverables
- **Sample containers do not comply to pretreatment / preservation standards (AS, APHA, USEPA). Please refer to the Sample Container(s)/Preservation Non-Compliance Log at the end of this report for details.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- **Sample DUP05a was not received.**
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Maggie Kahi.
- Analytical work for this work order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of work order.

Issue Date : 05-JUN-2009 15:59
 Page : 2 of 3
 Work Order : EB0908932
 Client : SINCLAIR KNIGHT MERZ



Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

Method Client sample ID	Sample Container Received	Preferred Sample Container for Analysis
EG020A-F : Dissolved Metals by ICP-MS - Suite A		
MW07	- Clear Plastic Bottle - Sulphuric Acid	- Clear Plastic Bottle - Nitric Acid; Filtered
EG035F : Dissolved Mercury by FIMS		
MW07	- Clear Plastic Bottle - Sulphuric Acid	- Clear Plastic Bottle - Nitric Acid; Filtered
EK055G : Ammonia as N by Discrete analyser		
MW07	- Amber Glass Bottle - Unpreserved	- Clear Plastic Bottle - Sulphuric Acid
EP070 : TPH - Speciation		
MW07	- Amber VOC Vial - HCl or NaHSO4	- Amber Glass Bottle - Unpreserved
EP071-HX : TPH - Semivolatile Fraction		
MW07	- Amber VOC Vial - HCl or NaHSO4	- Amber Glass Bottle - Unpreserved
EP074 : Volatile Organic Compounds		
MW07	- Clear Plastic Bottle - Filtered; Lab-acidified	- Amber VOC Vial - HCl or NaHSO4
EP080 : TPH Volatiles/BTEX		
MW07	- Clear Plastic Bottle - Filtered; Lab-acidified	- Amber VOC Vial - HCl or NaHSO4

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

When date(s) and/or time(s) are shown bracketed these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EP070 (Water) TPH Speciation - Aliphatic & Aromatic Hydrocarbons C10-C35	WATER - EP071(V - TPH-WD) TPH Volatiles	WATER - EP071-HX Total Petroleum Hydrocarbons (TPH)	WATER - EP074 (water) Volatile Organic Compounds	WATER - EP075 SIM Phenols only SIM - Phenols only	WATER - W-02 8 Metals	WATER - W-05 TPH/BTEX/8 Metals
EB0908932-001	02-JUN-2009 15:00	MW01	✓							✓
EB0908932-002	02-JUN-2009 15:00	MW02	✓							✓
EB0908932-003	02-JUN-2009 15:00	MW03	✓					✓	✓	
EB0908932-004	02-JUN-2009 15:00	MW04	✓	✓	✓	✓	✓		✓	
EB0908932-005	02-JUN-2009 15:00	MW05	✓	✓	✓	✓	✓		✓	
EB0908932-006	02-JUN-2009 15:00	MW06	✓	✓	✓	✓	✓		✓	
EB0908932-007	02-JUN-2009 15:00	MW07	✓	✓	✓	✓	✓		✓	
EB0908932-008	02-JUN-2009 15:00	MW08	✓					✓	✓	
EB0908932-009	02-JUN-2009 15:00	MW09	✓					✓	✓	
EB0908932-010	02-JUN-2009 15:00	DUP05								✓
EB0908932-011	02-JUN-2009 15:00	MWA (CR13)	✓					✓	✓	
EB0908932-012	02-JUN-2009 15:00	MWB (CR14)								✓
EB0908932-013	02-JUN-2009 15:00	MWC (CR15)								✓
EB0908932-014	02-JUN-2009 15:00	Drain	✓					✓	✓	

Issue Date : 05-JUN-2009 15:59
 Page : 3 of 3
 Work Order : EB0908932
 Client : SINCLAIR KNIGHT MERZ



Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - W-10 TPH/VOC/PAH	WATER - W-14A PAH/Phenols (SIM)
EB0908932-003	02-JUN-2009 15:00	MW03	✓	
EB0908932-004	02-JUN-2009 15:00	MW04		✓
EB0908932-005	02-JUN-2009 15:00	MW05		✓
EB0908932-006	02-JUN-2009 15:00	MW06		✓
EB0908932-007	02-JUN-2009 15:00	MW07		✓
EB0908932-008	02-JUN-2009 15:00	MW08	✓	
EB0908932-009	02-JUN-2009 15:00	MW09	✓	
EB0908932-011	02-JUN-2009 15:00	MWA (CR13)	✓	
EB0908932-014	02-JUN-2009 15:00	Drain	✓	

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)

Email

WAAccounts@skm.com.au

MR JEREMY WICKS

- *AU Certificate of Analysis - NATA (COA)
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental (SRN)
- Default - Chain of Custody (COC)
- EDI Format - ENMRG (ENMRG)
- EDI Format - ESDAT (ESDAT)
- EDI Format - XTab (XTAB)

Email

jwicks@skm.com.au

Email

jwicks@skm.com.au

Email

jwicks@skm.com.au

Email

jwicks@skm.com.au

Email

jwicks@skm.com.au

Email

jwicks@skm.com.au

Email

jwicks@skm.com.au

Email

jwicks@skm.com.au

MS ONA KANAS

- *AU Certificate of Analysis - NATA (COA)
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)
- A4 - AU Sample Receipt Notification - Environmental (SRN)
- Default - Chain of Custody (COC)
- EDI Format - ENMRG (ENMRG)
- EDI Format - ESDAT (ESDAT)
- EDI Format - XTab (XTAB)

Email

okanas@skm.com.au

Email

okanas@skm.com.au

Email

okanas@skm.com.au

Email

okanas@skm.com.au

Email

okanas@skm.com.au

Email

okanas@skm.com.au

Email

okanas@skm.com.au

Email

okanas@skm.com.au

Email

okanas@skm.com.au



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: EB0909112	Page	: 1 of 6
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Kilmister
Address	: P O BOX 246	Address	: 32 Shand Street Stafford QLD Australia 4053
	SPRING HILL QLD, AUSTRALIA 4004		
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: QE09537 Greyhound Qld Ltd	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 09-JUN-2009
C-O-C number	: ----	Issue Date	: 16-JUN-2009
Sampler	: O.KANAS	No. of samples received	: 1
Site	: ----	No. of samples analysed	: 1
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Sarah Ashworth	Organic Chemist	Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics

Environmental Division Brisbane

Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053

Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 6
Work Order : EB0908112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

- Volatile TPH/BTEX: Poor matrix spike recovery due to matrix interference. Confirmed by re-analysis.



Page : 3 of 6
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		Drain 1		Client sample ID	
Compound	CAS Number	LOR	Unit	09-JUN-2009 15:00	EB0909112-001	09-JUN-2009 15:00	EB0909112-001	09-JUN-2009 15:00	EB0909112-001
EG020T: Total Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	0.001	0.001	0.001	0.001	0.001	0.001
Cadmium	7440-43-9	0.0001	mg/L	0.0001	0.0003	0.0001	0.0003	0.0001	0.0003
Chromium	7440-47-3	0.001	mg/L	0.001	0.007	0.001	0.007	0.001	0.007
Copper	7440-50-8	0.001	mg/L	0.001	0.002	0.001	0.002	0.001	0.002
Lead	7439-92-1	0.001	mg/L	0.001	0.001	0.001	0.001	0.001	0.001
Nickel	7440-02-0	0.001	mg/L	0.001	0.005	0.001	0.005	0.001	0.005
Zinc	7440-66-6	0.005	mg/L	0.005	0.097	0.005	0.097	0.005	0.097
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	0.0001	<0.0001	0.0001	<0.0001	0.0001	<0.0001
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	5	µg/L	5	<5	5	<5	5	<5
Toluene	108-88-3	5	µg/L	5	<5	5	<5	5	<5
Ethylbenzene	100-41-4	5	µg/L	5	<5	5	<5	5	<5
meta- & para-Xylene	108-38-3	5	µg/L	5	<5	5	<5	5	<5
Styrene	100-42-5	5	µg/L	5	<5	5	<5	5	<5
ortho-Xylene	95-47-6	5	µg/L	5	<5	5	<5	5	<5
Isopropylbenzene	98-82-8	5	µg/L	5	<5	5	<5	5	<5
n-Propylbenzene	103-65-1	5	µg/L	5	<5	5	<5	5	<5
1,3,5-Trimethylbenzene	108-67-8	5	µg/L	5	<5	5	<5	5	<5
sec-Butylbenzene	135-98-8	5	µg/L	5	<5	5	<5	5	<5
1,2,4-Trimethylbenzene	95-63-6	5	µg/L	5	<5	5	<5	5	<5
tert-Butylbenzene	98-06-6	5	µg/L	5	<5	5	<5	5	<5
p-isopropyltoluene	99-87-6	5	µg/L	5	<5	5	<5	5	<5
n-Butylbenzene	104-51-8	5	µg/L	5	<5	5	<5	5	<5
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	50	µg/L	50	<50	50	<50	50	<50
2-Butanone (MEK)	78-93-3	50	µg/L	50	<50	50	<50	50	<50
4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	50	<50	50	<50	50	<50
2-Hexanone (MBK)	591-78-6	50	µg/L	50	<50	50	<50	50	<50
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	5	µg/L	5	<5	5	<5	5	<5
EP074D: Fumigants									
2,2-Dichloropropane	594-20-7	5	µg/L	5	<5	5	<5	5	<5
1,2-Dichloropropane	78-87-5	5	µg/L	5	<5	5	<5	5	<5
cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	5	<5	5	<5	5	<5
trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	5	<5	5	<5	5	<5
1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	5	<5	5	<5	5	<5



Page : 4 of 6
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Analytical Results

Sub-Matrix: WATER

Compound		CAS Number		LOR		Unit		Client sample ID		Client sampling date / time		Drain 1	
EP074E: Halogenated Aliphatic Compounds													
Dichlorodifluoromethane	75-71-8	50	µg/L	<50									
Chloromethane	74-87-3	50	µg/L	<50									
Vinyl chloride	75-01-4	50	µg/L	<50									
Bromomethane	74-83-9	50	µg/L	<50									
Chloroethane	75-00-3	50	µg/L	<50									
Trichlorofluoromethane	75-69-4	50	µg/L	<50									
1,1-Dichloroethene	75-35-4	5	µg/L	<5									
Iodomethane	74-88-4	5	µg/L	<5									
trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5									
1,1-Dichloroethane	75-34-3	5	µg/L	<5									
cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5									
1,1,1-Trichloroethane	71-55-6	5	µg/L	<5									
1,1-Dichloropropylene	563-58-6	5	µg/L	<5									
Carbon Tetrachloride	58-23-5	5	µg/L	<5									
1,2-Dichloroethane	107-06-2	5	µg/L	<5									
Trichloroethene	79-01-6	5	µg/L	<5									
Dibromomethane	74-95-3	5	µg/L	<5									
1,1,2-Trichloroethane	79-00-5	5	µg/L	<5									
1,3-Dichloropropane	142-28-9	5	µg/L	<5									
Tetrachloroethene	127-18-4	5	µg/L	<5									
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5									
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5									
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5									
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5									
1,2,3-Trichloropropane	98-18-4	5	µg/L	<5									
Pentachloroethane	76-01-7	5	µg/L	<5									
1,2-Dibromo-3-chloropropane	98-12-8	5	µg/L	<5									
Hexachlorobutadiene	87-68-3	5	µg/L	<5									
EP074F: Halogenated Aromatic Compounds													
Chlorobenzene	108-90-7	5	µg/L	<5									
Bromobenzene	108-86-1	5	µg/L	<5									
2-Chlorotoluene	95-49-8	5	µg/L	<5									
4-Chlorotoluene	106-43-4	5	µg/L	<5									
1,3-Dichlorobenzene	541-73-1	5	µg/L	<5									
1,4-Dichlorobenzene	106-46-7	5	µg/L	<5									
1,2-Dichlorobenzene	95-50-1	5	µg/L	<5									
1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5									
1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5									



Page : 5 of 6
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Analytical Results

Sub-Matrix: WATER

Compound	Client sample ID			Client sampling date / time		Drain 1	
	CAS Number	LOR	Unit			09-JUN-2009 15:00	EB0909112-001
EP074G: Trihalomethanes							
Chloroform	67-66-3	5	µg/L			<5	
Bromodichloromethane	75-27-4	5	µg/L			<5	
Dibromochloromethane	124-48-1	5	µg/L			<5	
Bromoform	75-25-2	5	µg/L			<5	
EP074H: Naphthalene							
Naphthalene	91-20-3	7	µg/L			<7	
EP080/071: Total Petroleum Hydrocarbons							
C6 - C9 Fraction	---	20	µg/L			<20	
C10 - C14 Fraction	---	50	µg/L			<50	
C15 - C28 Fraction	---	100	µg/L			200	
C29 - C36 Fraction	---	50	µg/L			100	
EP080: BTEX							
Benzene	71-43-2	1	µg/L			<1	
Toluene	108-88-3	2	µg/L			<2	
Ethylbenzene	100-41-4	2	µg/L			<2	
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L			<2	
ortho-Xylene	95-47-6	2	µg/L			<2	
EP074S: VOC Surrogates							
1,2-Dichloroethane-D4	17060-07-0	0.1	%			102	
Toluene-D8	2037-26-5	0.1	%			104	
4-Bromofluorobenzene	460-00-4	0.1	%			96.7	
EP080S: TPH(V)/BTEX Surrogates							
1,2-Dichloroethane-D4	17060-07-0	0.1	%			94.0	
Toluene-D8	2037-26-5	0.1	%			99.5	
4-Bromofluorobenzene	460-00-4	0.1	%			96.1	



Page : 6 of 6
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP074S: VOC Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	120
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP080S: TPH(V)/BTX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	120
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115



Environmental Division

QUALITY CONTROL REPORT

Work Order	: EB0909112	Page	: 1 of 11
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Kilmister
Address	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 4004	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: QE09537 Greyhound Qld Ltd	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 09-JUN-2009
C-O-C number	: ----	Issue Date	: 16-JUN-2009
Sampler	: O.KANAS	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



WORLD RECOGNISED
ACCREDITATION

Signatories

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Sarah Ashworth	Organic Chemist	Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics

Environmental Division Brisbane
Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 11
Work Order : EB0908112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :

Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
= Indicates failed QC



Page : 3 of 11
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: WATER

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report									
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)		
EG020T: Total Metals by ICP-MS (QC Lot: 1006390)											
EB0908843-002	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.0002	0.0	No Limit		
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit		
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit		
		EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.0072	0.0071	2.4	0% - 20%		
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.045	0.041	9.8	0% - 20%		
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	0.184	0.178	3.1	0% - 20%		
EB0909085-001	Anonymous	EG020A-T: Copper	7440-50-8	0.001	mg/L	0.461	0.476	3.2	0% - 20%		
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.216	0.211	2.3	0% - 20%		
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.181	0.179	0.9	0% - 20%		
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	2.27	2.33	2.6	0% - 20%		
		EG035T: Total Recoverable Mercury by FIMS (QC Lot: 1005964)									
		EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
		EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit		
		EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1004531)									
		EB0909112-001	Drain 1	EP074: Benzene	71-43-2	5	µg/L	<5	<5	0.0	No Limit
				EP074: Toluene	108-88-3	5	µg/L	<5	<5	0.0	No Limit
EP074: Ethylbenzene	100-41-4			5	µg/L	<5	<5	0.0	No Limit		
EP074: meta- & para-Xylene	108-38-3			5	µg/L	<5	<5	0.0	No Limit		
	106-42-3										
EP074: Styrene	100-42-5			5	µg/L	<5	<5	0.0	No Limit		
EP074: ortho-Xylene	95-47-6			5	µg/L	<5	<5	0.0	No Limit		
EP074: Isopropylbenzene	98-82-8			5	µg/L	<5	<5	0.0	No Limit		
EP074: n-Propylbenzene	103-65-1			5	µg/L	<5	<5	0.0	No Limit		
EP074: 1,3,5-Trimethylbenzene	108-67-8			5	µg/L	<5	<5	0.0	No Limit		
EP074: sec-Butylbenzene	135-98-8			5	µg/L	<5	<5	0.0	No Limit		
EP074: 1,2,4-Trimethylbenzene	95-63-6			5	µg/L	<5	<5	0.0	No Limit		
EP074: tert-Butylbenzene	98-06-6			5	µg/L	<5	<5	0.0	No Limit		
EP074: p-Isopropyltoluene	99-87-6			5	µg/L	<5	<5	0.0	No Limit		
EP074: n-Butylbenzene	104-51-8			5	µg/L	<5	<5	0.0	No Limit		
EP074: Benzene	71-43-2			5	µg/L	<5	<5	0.0	No Limit		
EP074: Toluene	108-88-3			5	µg/L	<5	<5	0.0	No Limit		
EB0909114-014	Anonymous										



Page : 4 of 11
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1004531) - continued									
EB0909114-014	Anonymous	EP074: Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: meta- & para-Xylene	108-38-3	5	µg/L	<5	<5	0.0	No Limit
		106-42-3							
		EP074: Styrene	100-42-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3,5-Trimethylbenzene	108-67-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,4-Trimethylbenzene	95-63-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: p-isopropyltoluene	99-87-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	<5	0.0	No Limit
EP074B: Oxygenated Compounds (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	0.0	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	<50	0.0	No Limit
		EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	0.0	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	<50	0.0	No Limit
EP074C: Sulfonated Compounds (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	0.0	No Limit
		EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	0.0	No Limit
EP074D: Fumigants (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	0.0	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Iodomethane	74-88-4	5	µg/L	<5	<5	0.0	No Limit



Page : 5 of 11
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Sub-Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Laboratory Duplicate (DUP) Report			Recovery Limits (%)
						Original Result	Duplicate Result	RPD (%)	
EB0909112-001	Drain 1	EP074E: Halogenated Aliphatic Compounds (QC Lot: 1004531) - continued							
		EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1-Dichloroethane	75-34-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,1-Trichloroethane	71-55-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	<5	0.0	No Limit
		EP074: Trichloroethene	79-01-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	<5	0.0	No Limit
		EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: Hexachlorobutadiene	87-68-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	5	µg/L	<50	<50	0.0	No Limit
		EP074: Chloromethane	74-87-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: Vinyl chloride	75-01-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: Bromomethane	74-83-9	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Iodomethane	74-88-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	<5	0.0	No Limit
EB0909114-014	Anonymous	EP074: 1,1-Dichloroethane	75-34-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,1-Trichloroethane	71-55-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	<5	0.0	No Limit
		EP074: Trichloroethene	79-01-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	<5	0.0	No Limit



Page : 6 of 11
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1004531) - continued									
EB0909114-014	Anonymous	EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: Hexachlorobutadiene	87-68-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloromethane	74-87-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: Vinyl chloride	75-01-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: Bromomethane	74-83-9	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	0.0	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: Chlorobenzene	108-90-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromobenzene	108-98-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: 4-Chlorotoluene	106-46-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Chlorobenzene	108-90-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromobenzene	108-98-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	0.0	No Limit
EP074: 1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	<5	0.0	No Limit		
EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	0.0	No Limit		
EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	<5	0.0	No Limit		
EP074: 1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	0.0	No Limit		
EP074G: Trihalomethanes (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: Chloroform	67-66-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	<5	0.0	No Limit
		EP074: Bromoform	75-25-2	5	µg/L	<5	<5	0.0	No Limit
EB0909114-014	Anonymous	EP074: Chloroform	67-66-3	5	µg/L	53	50	6.3	0% - 50%



Page : 7 of 11
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Sub-Matrix: WATER

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)	
EP074G: Trihalomethanes (QC Lot: 1004531) - continued										
EB0909114-014	Anonymous	EP074: Bromodichloromethane	75-27-4	5	µg/L	29	28	5.5	No Limit	
		EP074: Dibromochloromethane	124-48-1	5	µg/L	10	9	15.7	No Limit	
		EP074: Bromoform	75-25-2	5	µg/L	<5	<5	0.0	No Limit	
EP074H: Naphthalene (QC Lot: 1004531)										
EB0909112-001	Drain 1	EP074: Naphthalene	91-20-3	7	µg/L	<7	<7	0.0	No Limit	
EB0909114-014	Anonymous	EP074: Naphthalene	91-20-3	7	µg/L	<7	<7	0.0	No Limit	
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1004532)										
EB0909112-001	Drain 1	EP080: C6 - C9 Fraction	---	20	µg/L	<20	<20	0.0	No Limit	
EP080: BTEX (QC Lot: 1004532)										
EB0909112-001	Drain 1	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit	
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit	
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit	
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit	
		EP080: 106-42-3	106-42-3							
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit	



Page : 8 of 11
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: WATER

Sub-Matrix: WATER				Laboratory Control Spike (LCS) Report					
Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
						LCS	Low	High	
EG020T: Total Metals by ICP-MS (QCLot: 1006390)									
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.100 mg/L	96.6	76	120	
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.100 mg/L	103	84	112	
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.100 mg/L	111	82	124	
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	102	82	116	
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.100 mg/L	103	85	113	
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.100 mg/L	102	81	117	
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	102	81	123	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1005964)									
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.0100 mg/L	99.0	80	116	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1004531)									
EP074: Benzene	71-43-2	5	µg/L	<5	10 µg/L	96.1	75	122	
EP074: Toluene	108-88-3	5	µg/L	<5	10 µg/L	101	71.2	124	
EP074: Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	95.2	76	120	
EP074: meta- & para-Xylene	108-38-3	5	µg/L	<5	20 µg/L	94.1	68	132	
	106-42-3								
EP074: Styrene	100-42-5	5	µg/L	<5	10 µg/L	93.5	68	127	
EP074: ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.8	76	122	
EP074: Isopropylbenzene	98-82-8	5	µg/L	<5	10 µg/L	93.8	74	123	
EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	10 µg/L	95.5	70	125	
EP074: 1,3,5-Trimethylbenzene	108-67-8	5	µg/L	<5	10 µg/L	99.6	74	121	
EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	10 µg/L	93.2	72	124	
EP074: 1,2,4-Trimethylbenzene	95-63-6	5	µg/L	<5	10 µg/L	98.9	73.5	124	
EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	10 µg/L	97.0	71.6	128	
EP074: p-Isopropyltoluene	99-87-6	5	µg/L	<5	10 µg/L	99.5	68.3	130	
EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	10 µg/L	93.8	67	126	
EP074B: Oxygenated Compounds (QCLot: 1004531)									
EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	100 µg/L	92.6	65	147	
EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	108	54	130	
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	100 µg/L	101	63	137	
EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	100 µg/L	98.8	62	135	
EP074C: Sulfonated Compounds (QCLot: 1004531)									
EP074: Carbon disulfide	75-15-0	5	µg/L	<5	10 µg/L	94.5	68	135	
EP074D: Fumigants (QCLot: 1004531)									
EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	10 µg/L	88.2	60.7	143	



Page : 9 of 11
Work Order : EB0908112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report		Laboratory Control Spike (LCS) Report				
Method: Compound				Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		
CAS Number	LOR	Unit	LCS			Low	High			
EP074D: Fumigants (QCLot: 1004531) - continued										
EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	10 µg/L	90.9		69.7	128	
EP074: cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	20 µg/L	96.5		68	131	
EP074: trans-1,3-Dichloropropylene	10061-02-5	5	µg/L	<5	20 µg/L	99.2		67	140	
EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	10 µg/L	97.7		68.1	132	
EP074E: Halogenated Aliphatic Compounds (QCLot: 1004531)										
EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	100 µg/L	# 148		52	130	
EP074: Chloromethane	74-87-3	50	µg/L	<50	100 µg/L	126		43.1	130	
EP074: Vinyl chloride	75-01-4	50	µg/L	<50	100 µg/L	108		53	144	
EP074: Bromomethane	74-83-9	50	µg/L	<50	100 µg/L	126		57.5	130	
EP074: Chloroethane	75-00-3	50	µg/L	<50	100 µg/L	101		70	137	
EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	100 µg/L	96.8		64	135	
EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	10 µg/L	106		63.9	135	
EP074: Iodomethane	74-88-4	5	µg/L	<5	10 µg/L	115		57.2	130	
EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	10 µg/L	95.8		70	128	
EP074: 1,1-Dichloroethane	75-34-3	5	µg/L	<5	10 µg/L	93.0		64	136	
EP074: cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	10 µg/L	96.4		71	128	
EP074: 1,1,1-Trichloroethane	71-55-6	5	µg/L	<5	10 µg/L	92.4		68.4	135	
EP074: 1,1-Dichloropropylene	563-58-6	5	µg/L	<5	10 µg/L	92.8		71.4	127	
EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	10 µg/L	89.7		64	134	
EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	10 µg/L	104		68	134	
EP074: Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	96.7		72	127	
EP074: Dibromomethane	74-95-3	5	µg/L	<5	10 µg/L	91.6		63.9	136	
EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	10 µg/L	98.3		69.2	133	
EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	10 µg/L	102		73.7	130	
EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	94.1		73.8	132	
EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	10 µg/L	107		81	123	
EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	10 µg/L	103		26	130	
EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	10 µg/L	108		51.1	130	
EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	10 µg/L	99.3		72	133	
EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	10 µg/L	105		59	148	
EP074: Pentachloroethane	76-01-7	5	µg/L	<5	10 µg/L	97.7		68	138	
EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	10 µg/L	98.5		52	150	
EP074: Hexachlorobutadiene	87-68-3	5	µg/L	<5	10 µg/L	89.2		62	142	
EP074F: Halogenated Aromatic Compounds (QCLot: 1004531)										
EP074: Chlorobenzene	108-90-7	5	µg/L	<5	10 µg/L	97.4		77	120	
EP074: Bromobenzene	108-86-1	5	µg/L	<5	10 µg/L	100		76	122	
EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	10 µg/L	94.4		75.3	124	
EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	10 µg/L	96.7		76	120	
EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	10 µg/L	99.1		75.2	120	



Page : 10 of 11
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report		Laboratory Control Spike (LCS) Report			
Method: Compound				Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
CAS Number	LOR	Unit	LCS			Low	High		
EP074F: Halogenated Aromatic Compounds (QCLot: 1004531) - continued									
EP074: 1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	10 µg/L	102	76.1	119	
EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	10 µg/L	101	77.7	118	
EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	10 µg/L	98.2	68.3	128	
EP074: 1,2,3-Trichlorobenzene	87-61-5	5	µg/L	<5	10 µg/L	101	75	125	
EP074G: Trihalomethanes (QCLot: 1004531)									
EP074: Chloroform	67-66-3	5	µg/L	<5	10 µg/L	91.7	71.1	127	
EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	91.2	68	132	
EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	10 µg/L	99.6	69	130	
EP074: Bromoform	75-25-2	5	µg/L	<5	10 µg/L	94.6	62	137	
EP074H: Naphthalene (QCLot: 1004531)									
EP074: Naphthalene	91-20-3	7	µg/L	<7	10 µg/L	104	83.1	119	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1004507)									
EP071: C10 - C14 Fraction	----	50	µg/L	<50	600 µg/L	72.7	49	110	
EP071: C15 - C28 Fraction	----	100	µg/L	<100	1020 µg/L	84.4	58	130	
EP071: C29 - C36 Fraction	----	50	µg/L	<50	----	----	----	----	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1004532)									
EP080: C6 - C9 Fraction	----	20	µg/L	<20	160 µg/L	105	73	135	
EP080: BTEX (QCLot: 1004532)									
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	106	77.6	122	
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	105	74	122	
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	105	73	126	
EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	20 µg/L	111	70.4	129	
	106-42-3								
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	110	74.3	126	



Page : 11 of 11
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: WATER

Sub-Matrix: WATER			Matrix Spike (MS) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike	Spike Recovery (%)	Recovery Limits (%)	
				Concentration			MS
EG020T: Total Metals by ICP-MS (QCLot: 1006390)							
EB0908843-005	Anonymous	EG020A-T: Arsenic	7440-38-2	1.000 mg/L	101	70 130	
		EG020A-T: Cadmium	7440-43-9	0.500 mg/L	101	70 130	
		EG020A-T: Chromium	7440-47-3	1.000 mg/L	100	70 130	
		EG020A-T: Copper	7440-50-8	1.000 mg/L	95.0	70 130	
		EG020A-T: Lead	7439-92-1	1.000 mg/L	95.1	70 130	
		EG020A-T: Nickel	7440-02-0	1.000 mg/L	96.8	70 130	
		EG020A-T: Zinc	7440-66-6	1.000 mg/L	96.8	70 130	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1005964)							
EB0909083-007	Anonymous	EG035T: Mercury	7439-97-6	0.010 mg/L	107	70 130	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1004531)							
EB0909114-016	Anonymous	EP074: Benzene	71-43-2	10 µg/L	71.2	70 130	
		EP074: Toluene	108-88-3	10 µg/L	# 66.9	70 130	
EP074E: Halogenated Aliphatic Compounds (QCLot: 1004531)							
EB0909114-016	Anonymous	EP074: 1,1-Dichloroethene	75-35-4	10 µg/L	81.8	70 130	
		EP074: Trichloroethene	79-01-6	10 µg/L	# 65.3	70 130	
EP074F: Halogenated Aromatic Compounds (QCLot: 1004531)							
EB0909114-016	Anonymous	EP074: Chlorobenzene	108-90-7	10 µg/L	73.8	70 130	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1004532)							
EB0909114-016	Anonymous	EP080: C6 - C9 Fraction	----	140 µg/L	# 58.7	70 130	
EP080: BTEX (QCLot: 1004532)							
EB0909114-016	Anonymous	EP080: Benzene	71-43-2	10 µg/L	77.5	70 130	
		EP080: Toluene	108-88-3	10 µg/L	76.1	70 130	



Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: EB0909112	Page	: 1 of 6
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Klimister
Address	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 4004	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: QE09537 Greyhound Qld Ltd	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ---	Date Samples Received	: 09-JUN-2009
C-O-C number	: ---	Issue Date	: 16-JUN-2009
Sampler	: O.KANAS	No. of samples received	: 1
Order number	: ---	No. of samples analysed	: 1
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 2 of 6
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: WATER

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method		Sample Date	Extraction / Preparation		Analysis	
Container / Client Sample ID(s)	Date extracted		Due for extraction	Evaluation	Date analysed	Due for analysis
EG020T: Total Metals by ICP-MS						
Clear Plastic Bottle - Unfiltered; Lab-acidified Drain 1	11-JUN-2009	06-DEC-2009	✓	11-JUN-2009	06-DEC-2009	✓
EG035T: Total Recoverable Mercury by FIMS						
Clear Plastic Bottle - Unfiltered; Lab-acidified Drain 1	09-JUN-2009	----	----	11-JUN-2009	07-JUL-2009	✓
EP074A: Monocyclic Aromatic Hydrocarbons						
Amber VOC Vial - HCl or NaHSO4 Drain 1	09-JUN-2009	----	----	11-JUN-2009	23-JUN-2009	✓
EP074B: Oxygenated Compounds						
Amber VOC Vial - HCl or NaHSO4 Drain 1	09-JUN-2009	----	----	11-JUN-2009	23-JUN-2009	✓
EP074C: Sulfonated Compounds						
Amber VOC Vial - HCl or NaHSO4 Drain 1	09-JUN-2009	----	----	11-JUN-2009	23-JUN-2009	✓
EP074D: Fumigants						
Amber VOC Vial - HCl or NaHSO4 Drain 1	09-JUN-2009	----	----	11-JUN-2009	23-JUN-2009	✓
EP074E: Halogenated Aliphatic Compounds						
Amber VOC Vial - HCl or NaHSO4 Drain 1	09-JUN-2009	----	----	11-JUN-2009	23-JUN-2009	✓
EP074F: Halogenated Aromatic Compounds						
Amber VOC Vial - HCl or NaHSO4 Drain 1	09-JUN-2009	----	----	11-JUN-2009	23-JUN-2009	✓
EP074G: Trihalomethanes						
Amber VOC Vial - HCl or NaHSO4 Drain 1	09-JUN-2009	----	----	11-JUN-2009	23-JUN-2009	✓
EP074H: Naphthalene						
Amber VOC Vial - HCl or NaHSO4 Drain 1	09-JUN-2009	----	----	11-JUN-2009	23-JUN-2009	✓



Page : 3 of 6
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Matrix: WATER

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method	Container / Client Sample ID(s)	Sample Date	Extraction / Preparation		Evaluation	Analysis	
			Date extracted	Due for extraction		Date analysed	Due for analysis
EP080/074: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved							
Drain 1		09-JUN-2009	11-JUN-2009	16-JUN-2009	✓	15-JUN-2009	21-JUL-2009
Amber VOC Vial - HCl or NaHSO4							✓
Drain 1		09-JUN-2009	--	--	----	11-JUN-2009	23-JUN-2009
EP080: BTEX							
Amber VOC Vial - HCl or NaHSO4							
Drain 1		09-JUN-2009	--	--	----	11-JUN-2009	23-JUN-2009
							✓

RTI DL RELEASE - EHP



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(when) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Method	Count		Actual	Rate (%)		Evaluation	Quality Control Specification
Analytical Methods			QC	Regular		Expected			
Laboratory Duplicates (DUP)									
Total Mercury by FIMS		EG035T	2	20	10.0	10.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A		EG020A-T	2	20	10.0	10.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX		EP080	1	6	16.7	10.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds		EP074	2	16	12.5	10.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)									
Total Mercury by FIMS		EG035T	1	20	5.0	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A		EG020A-T	1	20	5.0	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction		EP071	1	19	5.3	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX		EP080	1	6	16.7	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds		EP074	1	16	6.3	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)									
Total Mercury by FIMS		EG035T	1	20	5.0	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A		EG020A-T	1	20	5.0	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction		EP071	1	19	5.3	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX		EP080	1	6	16.7	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds		EP074	1	16	6.3	5.0		✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)									
Total Mercury by FIMS		EG035T	1	20	5.0	5.0		✓	ALS QCS3 requirement
Total Metals by ICP-MS - Suite A		EG020A-T	1	20	5.0	5.0		✓	ALS QCS3 requirement
TPH Volatiles/BTEX		EP080	1	6	16.7	5.0		✓	ALS QCS3 requirement
Volatile Organic Compounds		EP074	1	16	6.3	5.0		✓	ALS QCS3 requirement



Page : 5 of 6
 Work Order : EB0909112
 Client : SINCLAIR KNIGHT MERZ
 Project : QE09537 Greyhound Qld Ltd

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Volatile Organic Compounds	EP074	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Preparation Methods	Method	Matrix	Method Descriptions
Digestion for Total Recoverable Metals	EN25	WATER	USEPA SW846-3005 Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Separatory Funnel Extraction of Liquids	ORG14	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resulting extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.



Page : 6 of 6
Work Order : EB0909112
Client : SINCLAIR KNIGHT MERZ
Project : QE09537 Greyhound Qld Ltd

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWJEN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: WATER

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP074E: Halogenated Aliphatic Compounds	1151557-002	---	Dichlorodifluoromethane	75-71-8	148 %	52-130%	Recovery greater than upper control limit
Matrix Spike (MS) Recoveries							
EP074A: Monocyclic Aromatic Hydrocarbons	EB0909114-016	Anonymous	Toluene	108-88-3	66.9 %	70-130%	Recovery less than lower data quality objective
EP074E: Halogenated Aliphatic Compounds	EB0909114-016	Anonymous	Trichloroethene	79-01-6	65.3 %	70-130%	Recovery less than lower data quality objective
EP080/071: Total Petroleum Hydrocarbons	EB0909114-016	Anonymous	C6+ Oil Fraction	---	58.7 %	70-130%	Recovery less than lower data quality objective

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Duplicate outliers occur.

Regular Sample Surrogates

- For all regular sample matrices, no surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.



Environmental Division

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EB0909112**

Client : **SINCLAIR KNIGHT MERZ**
Contact : **MS ONA KANAS**
Address : **P O BOX 246**
SPRING HILL QLD, AUSTRALIA 4004

Laboratory : **Environmental Division Brisbane**
Contact : **Tim Kilmister**
Address : **32 Shand Street Stafford QLD Australia**
4053

E-mail : **okanas@skm.com.au**
Telephone : **+61 07 3244 7100**
Facsimile : **+61 07 3244 7306**

E-mail : **Services.Brisbane@alsenviro.com**
Telephone : **+61-7-3243 7222**
Facsimile : **+61-7-3243 7218**

Project : **QE09537 Greyhound Qld Ltd**
Order number : **----**
C-O-C number : **----**
Site : **----**
Sampler : **O.KANAS**

Page : **1 of 2**
Quote number : **ES2009SINKNI0322 (EN/003/09)**
QC Level : **NEPM 1999 Schedule B(3) and ALS**
QCS3 requirement

Dates

Date Samples Received : **09-JUN-2009**
Client Requested Due Date : **16-JUN-2009**

Issue Date : **10-JUN-2009 07:43**
Scheduled Reporting Date : **16-JUN-2009**

Delivery Details

Mode of Delivery : **Client Drop off**
No. of coolers/boxes : **1 SMALL**
Security Seal : **Not intact.**

Temperature : **19.0 C**
No. of samples received : **1**
No. of samples analysed : **1**

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Requested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Maggie Kahi.
- Analytical work for this work order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of work order.



Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- No sample container / preservation non-compliance exist.

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Matrix: WATER

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - EP074 (water) Volatile Organic Compounds	WATER - W-05T TPH/BTEX/8 Metals (Total)
EB0909112-001	09-JUN-2009 15:00	Drain 1	✓	✓

Requested Deliverables

MR JEREMY WICKS

- *AU Certificate of Analysis - NATA (COA)	Email	jwicks@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jwicks@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jwicks@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	jwicks@skm.com.au
- A4 - AU Tax Invoice (INV)	Email	jwicks@skm.com.au
- Default - Chain of Custody (COC)	Email	jwicks@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	jwicks@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	jwicks@skm.com.au
- EDI Format - XTab (XTAB)	Email	jwicks@skm.com.au

MS ONA KANAS

- *AU Certificate of Analysis - NATA (COA)	Email	okanas@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	okanas@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	okanas@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	okanas@skm.com.au
- Default - Chain of Custody (COC)	Email	okanas@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	okanas@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	okanas@skm.com.au
- EDI Format - XTab (XTAB)	Email	okanas@skm.com.au



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: EB0914886	Page	: 1 of 18
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Kilmister
Address	: EASTERN BUSWAY PROJECT PO BOX 3848 STH BRISBANE 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3026 7286	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3026 7306	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ---	Date Samples Received	: 18-SEP-2009
C-O-C number	: ---	Issue Date	: 01-OCT-2009
Sampler	: ---	No. of samples received	: 16
Site	: Cronulla Park	No. of samples analysed	: 15
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Matt Frost	Organic Instrument Chemist	Organics
Nancy Wang	Instrument Chemist	Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics

RTI DL RELEASE - EHP

Environmental Division Brisbane

Part of the **ALS Laboratory Group**

32 Shand Street Stafford QLD Australia 4053

Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company



Page : 3 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

- EP075: 'Sum of PAH' is the sum of the USEPA 16 priority PAHs
- EP075SIM: Poor surrogate recovery 'Phenol-d6' for samples 'EB0914886_005_006' due to matrix interferences, confirmed by re-analysis.
- PAH/phenols: Sample MW08 required dilution prior to analysis due to matrix interferences. LOR values have been adjusted accordingly.



Page : 4 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Client sample ID
Client sampling date / time

Compound	CAS Number	LOR	Unit	MW01 17-SEP-2009 15:00 EB0914886-001	MW02 17-SEP-2009 15:00 EB0914886-002	MW03 17-SEP-2009 15:00 EB0914886-003	MW04 17-SEP-2009 15:00 EB0914886-004	MW05 17-SEP-2009 15:00 EB0914886-005
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.001	0.007	0.003
Cadmium	7440-43-9	0.0001	mg/L	0.0002	0.0003	0.0007	0.0004	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.021	0.001	0.012	0.003	0.019
Copper	7440-50-8	0.001	mg/L	0.014	0.003	0.020	0.004	0.004
Lead	7439-92-1	0.001	mg/L	0.115	0.001	0.048	<0.001	0.001
Nickel	7440-02-0	0.001	mg/L	0.028	0.002	0.124	0.009	0.012
Zinc	7440-66-6	0.005	mg/L	0.072	0.060	0.463	0.013	0.018
EG035F: Dissolved Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EP070: Total Petroleum Hydrocarbons - Speciation								
Aliphatic C10-C14	---	50	µg/L	---	---	---	<50	<50
Aliphatic C15-C28	---	100	µg/L	---	---	---	<100	<100
Aliphatic C29-C36	---	50	µg/L	---	---	---	<50	<50
Aromatic C10-C14	---	50	µg/L	---	---	---	60	60
Aromatic C15-C28	---	100	µg/L	---	---	---	<100	<100
Aromatic C29-C36	---	50	µg/L	---	---	---	<50	<50
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	1	µg/L	---	---	<2	4	2
Toluene	108-88-3	2	µg/L	---	---	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L	---	---	<2	<2	<2
meta- & para-Xylene	108-38-3 108-42-3	2	µg/L	---	---	<4	<4	<4
Styrene	100-42-5	5	µg/L	---	---	<5	<5	<5
ortho-Xylene	95-47-6	2	µg/L	---	---	<2	<2	<2
Isopropylbenzene	98-82-8	5	µg/L	---	---	<5	<5	<5
n-Propylbenzene	103-65-1	5	µg/L	---	---	<5	7	<5
1,3,5-Trimethylbenzene	108-67-8	5	µg/L	---	---	<5	<5	<5
sec-Butylbenzene	135-98-8	5	µg/L	---	---	<5	<5	<5
1,2,4-Trimethylbenzene	95-63-6	5	µg/L	---	---	<5	<5	<5
tert-Butylbenzene	98-06-6	5	µg/L	---	---	<5	<5	<5
p-Isopropyltoluene	99-87-6	5	µg/L	---	---	<5	<5	<5
n-Butylbenzene	104-51-8	5	µg/L	---	---	<5	<5	<5
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	50	µg/L	---	---	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L	---	---	<50	<50	<50
4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	---	---	<50	<50	<50
2-Hexanone (MIBK)	591-78-6	50	µg/L	---	---	<50	<50	<50
EP074C: Sulfonated Compounds								



Page : 5 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Compound	CAS Number	LOR	Unit	Client sample ID					MW05
				Client sampling date / time	MW01	MW02	MW03	MW04	
				17-SEP-2009 15:00	EB0914886-001	17-SEP-2009 15:00	EB0914886-002	17-SEP-2009 15:00	EB0914886-005
Sub-Matrix: WATER									
EP074C: Sulfonated Compounds - Continued									
Carbon disulfide	75-15-0	5	µg/L					<5	<5
EP074D: Fumigants									
2,2-Dichloropropane	594-20-7	5	µg/L					<5	<5
1,2-Dichloropropane	78-87-5	5	µg/L					<5	<5
cis-1,3-Dichloropropylene	10061-01-5	5	µg/L					<5	<5
trans-1,3-Dichloropropylene	10061-02-6	5	µg/L					<5	<5
1,2-Dibromoethane (EDB)	106-93-4	5	µg/L					<5	<5
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	50	µg/L					<50	<50
Chloromethane	74-87-3	50	µg/L					<50	<50
Vinyl chloride	75-01-4	50	µg/L					<50	<50
Bromomethane	74-83-9	50	µg/L					<50	<50
Chloroethane	75-00-3	50	µg/L					<50	<50
Trichlorofluoromethane	75-69-4	50	µg/L					<50	<50
1,1-Dichloroethene	75-35-4	5	µg/L					<5	<5
Iodomethane	74-88-4	5	µg/L					<5	<5
trans-1,2-Dichloroethene	156-60-5	5	µg/L					<5	<5
1,1-Dichloroethane	75-34-3	5	µg/L					<5	<5
cis-1,2-Dichloroethene	156-59-2	5	µg/L					<5	<5
1,1,1-Trichloroethane	71-55-6	5	µg/L					<5	<5
1,1-Dichloropropylene	563-58-6	5	µg/L					<5	<5
Carbon Tetrachloride	56-23-5	5	µg/L					<5	<5
1,2-Dichloroethane	107-06-2	5	µg/L					<5	<5
Trichloroethene	79-01-6	5	µg/L					<5	<5
Dibromomethane	74-95-3	5	µg/L					<5	<5
1,1,2-Trichloroethane	79-00-5	5	µg/L					<5	<5
1,3-Dichloropropane	142-28-9	5	µg/L					<5	<5
Tetrachloroethene	127-18-4	5	µg/L					<5	<5
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L					<5	<5
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L					<5	<5
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L					<5	<5
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L					<5	<5
1,2,3-Trichloropropane	96-18-4	5	µg/L					<5	<5
Pentachloroethane	76-01-7	5	µg/L					<5	<5
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L					<5	<5
Hexachlorobutadiene	87-68-3	5	µg/L					<5	<5
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	5	µg/L					<5	24



Page : 6 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Compound		Client sample ID				Client sampling date / time			
		CAS Number	LOR	Unit	MW01	MW02	MW03	MW04	MW05
EP074F: Halogenated Aromatic Compounds - Continued									
Bromobenzene	108-86-1	5	µg/L	---	---	---	<5	<5	<5
2-Chlorotoluene	95-49-8	5	µg/L	---	---	---	<5	<5	<5
4-Chlorotoluene	106-43-4	5	µg/L	---	---	---	<5	<5	<5
1,3-Dichlorobenzene	541-73-1	5	µg/L	---	---	---	<5	<5	<5
1,4-Dichlorobenzene	106-46-7	5	µg/L	---	---	---	<5	<5	<5
1,2-Dichlorobenzene	95-50-1	5	µg/L	---	---	---	<5	<5	<5
1,2,4-Trichlorobenzene	120-82-1	5	µg/L	---	---	---	<5	<5	<5
1,2,3-Trichlorobenzene	87-61-6	5	µg/L	---	---	---	<5	<5	<5
EP074G: Trihalomethanes									
Chloroform	67-66-3	5	µg/L	---	---	---	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L	---	---	---	<5	<5	<5
Dibromochloromethane	124-48-1	5	µg/L	---	---	---	<5	<5	<5
Bromoform	75-25-2	5	µg/L	---	---	---	<5	<5	<5
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	1.0	µg/L	---	---	---	---	<1.0	<1.0
2-Chlorophenol	95-57-8	1.0	µg/L	---	---	---	---	<1.0	<1.0
2-Methylphenol	95-48-7	1.0	µg/L	---	---	---	---	<1.0	<1.0
3- & 4-Methylphenol	1319-77-3	2.0	µg/L	---	---	---	---	<2.0	<2.0
2-Nitrophenol	88-75-5	1.0	µg/L	---	---	---	---	<1.0	<1.0
2,4-Dimethylphenol	105-67-9	1.0	µg/L	---	---	---	---	<1.0	<1.0
2,4-Dichlorophenol	120-83-2	1.0	µg/L	---	---	---	---	<1.0	<1.0
2,6-Dichlorophenol	87-65-0	1.0	µg/L	---	---	---	---	<1.0	<1.0
4-Chloro-3-Methylphenol	59-50-7	1.0	µg/L	---	---	---	---	<1.0	<1.0
2,4,6-Trichlorophenol	88-06-2	1.0	µg/L	---	---	---	---	<1.0	<1.0
2,4,5-Trichlorophenol	95-95-4	1.0	µg/L	---	---	---	---	<1.0	<1.0
Pentachlorophenol	87-86-5	2.0	µg/L	---	---	---	---	<2.0	<2.0
2,3,4,6-Tetrachlorophenol	58-90-2	1.0	µg/L	---	---	---	---	<1.0	<1.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L	---	---	---	<1.0	12.3	5.9
2-Methylnaphthalene	91-57-6	1.0	µg/L	---	---	---	---	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L	---	---	---	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L	---	---	---	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L	---	---	---	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L	---	---	---	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L	---	---	---	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L	---	---	---	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L	---	---	---	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L	---	---	---	<1.0	<1.0	<1.0



Page : 7 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time				
Compound	CAS Number	LOR	Unit	MW01	MW02	MW03	MW04	MW05
				17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00
				EB0914886-001	EB0914886-002	EB0914886-003	EB0914886-004	EB0914886-005
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	---	---	<0.5	<0.5	<0.5
Indeno(1,2,3.cd)pyrene	193-39-5	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	---	---	<1.0	<1.0	<1.0
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	---	---	<1.0	<1.0	<1.0
^ Sum of polycyclic aromatic hydrocarbons	---	1.0	µg/L	---	---	---	12.3	5.9
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	---	20	µg/L	<20	<20	<20	30	40
C10 - C14 Fraction	---	50	µg/L	---	---	---	400	90
C10 - C14 Fraction	---	50	µg/L	<50	<50	<50	---	---
C15 - C28 Fraction	---	100	µg/L	---	---	---	850	390
C15 - C28 Fraction	---	100	µg/L	<100	<100	<100	---	---
C29 - C36 Fraction	---	50	µg/L	---	---	---	170	<50
C29 - C36 Fraction	---	50	µg/L	<50	<50	<50	---	---
^ C10 - C36 Fraction (sum)	---	50	µg/L	---	---	---	1430	470
C10 - C36 Fraction (sum)	---	50	µg/L	<50	<50	<50	---	---
EP080: BTEX								
Benzene	71-43-2	1	µg/L	<1	<1	---	---	---
Toluene	108-88-3	2	µg/L	<2	<2	---	---	---
Ethylbenzene	100-41-4	2	µg/L	<2	<2	---	---	---
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	---	---	---
ortho-Xylene	95-47-6	2	µg/L	<2	<2	---	---	---
EP070S: TPH Surrogates - Speciation								
2-Fluorobiphenyl	321-60-8	0.1	%	---	---	---	100	103
2-Bromonaphthalene	580-13-2	0.1	%	---	---	---	107	109
EP074S: VOC Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	---	---	87.4	84.1	89.5
Toluene-D8	2037-26-5	0.1	%	---	---	99.7	92.6	97.4
4-Bromofluorobenzene	460-00-4	0.1	%	---	---	104	97.1	99.6
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	---	---	30.4	12.2	8.7
2-Chlorophenol-D4	93951-73-6	0.1	%	---	---	72.2	31.8	28.0
2,4,6-Tribromophenol	118-79-6	0.1	%	---	---	88.8	105	76.7
EP075(SIM)T: PAH Surrogates								



Page : 8 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER	Client sample ID		Client sampling date / time					
	CAS Number	LOR	Unit	MW01	MW02	MW03	MW04	MW05
				17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00
				EB0914886-001	EB0914886-002	EB0914886-003	EB0914886-004	EB0914886-005
EP075(SIM)T: PAH Surrogates - Continued								
2-Fluorobiphenyl	321-60-8	0.1	%	-----	-----	101	86.1	55.4
Anthracene-d10	1719-06-8	0.1	%	-----	-----	82.5	108	80.7
4-Terphenyl-d14	1718-51-0	0.1	%	-----	-----	88.9	112	78.7
EP080S: TPH(V)/BTX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	87.3	94.1	97.3	94.0	99.4
Toluene-D8	2037-26-5	0.1	%	94.9	97.4	103	95.5	100
4-Bromofluorobenzene	460-00-4	0.1	%	99.1	102	106	99.2	102



Page : 9 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QED9537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER			Client sample ID					
Sub-Matrix: WATER			Client sampling date / time					
Compound	CAS Number	LOR	Unit	MW06	MW07	MW08	MW09	Dup01
				17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00
				EB0914886-006	EB0914886-007	EB0914886-008	EB0914886-009	EB0914886-010
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	0.013	0.008	0.012	<0.001	0.013
Cadmium	7440-43-9	0.0001	mg/L	0.0002	0.0006	0.0003	0.0002	0.0010
Chromium	7440-47-3	0.001	mg/L	0.001	0.018	0.009	0.001	<0.001
Copper	7440-50-8	0.001	mg/L	0.003	0.009	0.011	0.006	0.007
Lead	7439-92-1	0.001	mg/L	<0.001	0.001	<0.001	0.003	<0.001
Nickel	7440-02-0	0.001	mg/L	0.008	0.046	0.023	<0.001	0.008
Zinc	7440-66-6	0.005	mg/L	0.026	0.016	0.034	0.021	0.026
EG035F: Dissolved Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EP070: Total Petroleum Hydrocarbons - Speciation								
Aliphatic C10-C14	----	50	µg/L	<50	<50	----	----	----
Aliphatic C15-C28	----	100	µg/L	<100	<100	----	----	----
Aliphatic C29-C36	----	50	µg/L	<50	<50	----	----	----
Aromatic C10-C14	----	50	µg/L	<50	90	----	----	----
Aromatic C15-C28	----	100	µg/L	<100	<100	----	----	----
Aromatic C29-C36	----	50	µg/L	<50	<50	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	1	µg/L	<2	5	<2	----	----
Toluene	108-88-3	2	µg/L	4	2	<2	----	----
Ethylbenzene	100-41-4	2	µg/L	2	5	3	----	----
meta- & para-Xylene	108-38-3	2	µg/L	<4	6	5	----	----
Styrene	100-42-5	5	µg/L	<5	<5	<5	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	3	<2	----	----
Isopropylbenzene	98-82-8	5	µg/L	<5	<5	<5	----	----
n-Propylbenzene	103-65-1	5	µg/L	<5	<5	5	----	----
1,3,5-Trimethylbenzene	108-67-8	5	µg/L	<5	<5	<5	----	----
sec-Butylbenzene	135-98-8	5	µg/L	<5	<5	<5	----	----
1,2,4-Trimethylbenzene	95-63-6	5	µg/L	<5	5	7	----	----
tert-Butylbenzene	98-06-6	5	µg/L	<5	<5	<5	----	----
p-Isopropyltoluene	99-87-6	5	µg/L	<5	<5	16	----	----
n-Butylbenzene	104-51-8	5	µg/L	<5	<5	<5	----	----
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	50	µg/L	<50	<50	<50	----	----
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	<50	----	----
4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	<50	----	----
2-Hexanone (MBK)	591-78-6	50	µg/L	<50	<50	<50	----	----
EP074C: Sulfonated Compounds								



Page : 10 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		MW06		MW07		MW08		MW09		Dup01						
Compound		CAS Number	LOR	Unit	17-SEP-2009 15:00		EB0914886-006		17-SEP-2009 15:00		EB0914886-007		17-SEP-2009 15:00		EB0914886-009		17-SEP-2009 15:00		EB0914886-010	
EP074C: Sulfonated Compounds - Continued																				
Carbon disulfide		75-15-0	5	µg/L	<5				<5											
EP074D: Fumigants																				
2,2-Dichloropropane		594-20-7	5	µg/L	<5				<5											
1,2-Dichloropropane		78-87-5	5	µg/L	<5				<5											
cis-1,3-Dichloropropylene		10061-01-5	5	µg/L	<5				<5											
trans-1,3-Dichloropropylene		10061-02-6	5	µg/L	<5				<5											
1,2-Dibromoethane (EDB)		106-93-4	5	µg/L	<5				<5											
EP074E: Halogenated Aliphatic Compounds																				
Dichlorodifluoromethane		75-71-8	50	µg/L	<50				<50											
Chloromethane		74-87-3	50	µg/L	<50				<50											
Vinyl chloride		75-01-4	50	µg/L	<50				<50											
Bromomethane		74-83-9	50	µg/L	<50				<50											
Chloroethane		75-00-3	50	µg/L	<50				<50											
Trichlorofluoromethane		75-69-4	50	µg/L	<50				<50											
1,1-Dichloroethene		75-35-4	5	µg/L	<5				<5											
Iodomethane		74-88-4	5	µg/L	<5				<5											
trans-1,2-Dichloroethene		156-60-5	5	µg/L	<5				<5											
1,1-Dichloroethane		75-34-3	5	µg/L	<5				<5											
cis-1,2-Dichloroethene		156-59-2	5	µg/L	<5				<5											
1,1,1-Trichloroethane		71-55-6	5	µg/L	<5				<5											
1,1-Dichloropropylene		563-58-6	5	µg/L	<5				<5											
Carbon Tetrachloride		58-23-5	5	µg/L	<5				<5											
1,2-Dichloroethane		107-06-2	5	µg/L	<5				<5											
Trichloroethene		79-01-6	5	µg/L	<5				<5											
Dibromomethane		74-95-3	5	µg/L	<5				<5											
1,1,2-Trichloroethane		79-00-5	5	µg/L	<5				<5											
1,3-Dichloropropane		142-28-9	5	µg/L	<5				<5											
Tetrachloroethene		127-18-4	5	µg/L	<5				<5											
1,1,1,2-Tetrachloroethane		630-20-6	5	µg/L	<5				<5											
trans-1,4-Dichloro-2-butene		110-57-6	5	µg/L	<5				<5											
cis-1,4-Dichloro-2-butene		1476-11-5	5	µg/L	<5				<5											
1,1,2,2-Tetrachloroethane		79-34-5	5	µg/L	<5				<5											
1,2,3-Trichloropropane		96-18-4	5	µg/L	<5				<5											
Pentachloroethane		76-01-7	5	µg/L	<5				<5											
1,2-Dibromo-3-chloropropane		96-12-8	5	µg/L	<5				<5											
Hexachlorobutadiene		87-68-3	5	µg/L	<5				<5											
EP074F: Halogenated Aromatic Compounds																				
Chlorobenzene		108-90-7	5	µg/L	<5				7					<5						



Page : 11 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QED9537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		Client sampling date / time		Client sample ID		Client sampling date / time		Client sample ID		Client sampling date / time	
Compound	CAS Number	LOR	Unit	MW06	MW07	MW08	MW09	Dup01					
EP074F: Halogenated Aromatic Compounds - Continued													
Bromobenzene	108-86-1	5	µg/L	<5	<5	<5	---	---					
2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	<5	---	---					
4-Chlorotoluene	106-43-4	5	µg/L	<5	<5	<5	---	---					
1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	<5	---	---					
1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	<5	<5	---	---					
1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	<5	---	---					
1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	<5	<5	---	---					
1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	<5	---	---					
EP074G: Trihalomethanes													
Chloroform	67-66-3	5	µg/L	<5	<5	<5	---	---					
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5	---	---					
Dibromochloromethane	124-48-1	5	µg/L	<5	<5	<5	---	---					
Bromoform	75-25-2	5	µg/L	<5	<5	<5	---	---					
EP075(SIM)A: Phenolic Compounds													
Phenol	108-95-2	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
2-Chlorophenol	95-57-8	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
2-Methylphenol	95-48-7	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
3- & 4-Methylphenol	1319-77-3	2.0	µg/L	<2.0	<2.0	<7.7	---	---					
2-Nitrophenol	88-75-5	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
2,4-Dimethylphenol	105-67-9	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
2,4-Dichlorophenol	120-83-2	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
2,6-Dichlorophenol	87-65-0	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
4-Chloro-3-Methylphenol	59-50-7	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
2,4,6-Trichlorophenol	88-06-2	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
2,4,5-Trichlorophenol	95-95-4	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Pentachlorophenol	87-86-5	2.0	µg/L	<2.0	<2.0	<7.7	---	---					
2,3,4,6-Tetrachlorophenol	58-90-2	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons													
Naphthalene	91-20-3	1.0	µg/L	2.6	6.7	<3.8	---	---					
2-Methylnaphthalene	91-57-6	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Acenaphthene	83-32-9	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Fluorene	86-73-7	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Phenanthrene	85-01-8	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Anthracene	120-12-7	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Fluoranthene	206-44-0	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Pyrene	129-00-0	1.0	µg/L	<1.0	<1.0	<3.8	---	---					
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	<3.8	---	---					



Page : 12 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID		MW06	MW07	MW08	MW09	Dup01
Sub-Matrix: WATER		Client sampling date / time		17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00
Compound	CAS Number	LOR	Unit	EB0914886-006	EB0914886-007	EB0914886-008	EB0914886-009	EB0914886-010
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<3.8	---	---
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	<1.0	<1.0	<3.8	---	---
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<3.8	---	---
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<3.8	---	---
Indeno(1,2,3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<3.8	---	---
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<3.8	---	---
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<3.8	---	---
^ Sum of polycyclic aromatic hydrocarbons	---	1.0	µg/L	2.6	6.7	<3.8	---	---
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	---	20	µg/L	30	50	30	<20	30
C10 - C14 Fraction	---	50	µg/L	50	800	---	---	---
C10 - C14 Fraction	---	50	µg/L	---	---	580	60	450
C15 - C28 Fraction	---	100	µg/L	180	1480	---	---	---
C15 - C28 Fraction	---	100	µg/L	---	---	1700	100	1200
C29 - C36 Fraction	---	50	µg/L	<50	---	---	---	---
C29 - C36 Fraction	---	50	µg/L	---	---	710	<50	210
^ C10 - C36 Fraction (sum)	---	50	µg/L	240	---	---	---	---
^ C10 - C36 Fraction (sum)	---	50	µg/L	---	---	2990	180	1820
EP080: BTEX								
Benzene	71-43-2	1	µg/L	---	---	---	<1	1
Toluene	108-88-3	2	µg/L	---	---	---	<2	4
Ethylbenzene	100-41-4	2	µg/L	---	---	---	<2	2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	---	---	---	<2	<2
ortho-Xylene	95-47-6	2	µg/L	---	---	---	<2	<2
EP070S: TPH Surrogates - Speciation								
2-Fluorobiphenyl	321-60-8	0.1	%	99.4	107	---	---	---
2-Bromonaphthalene	580-13-2	0.1	%	108	112	---	---	---
EP074S: VOC Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	89.4	85.4	85.2	---	---
Toluene-D8	2037-26-5	0.1	%	94.8	89.8	89.5	---	---
4-Bromofluorobenzene	460-00-4	0.1	%	97.0	93.4	92.2	---	---
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	8.5	13.2	26.8	---	---
2-Chlorophenol-D4	93951-73-6	0.1	%	27.6	34.0	63.4	---	---
2,4,6-Tribromophenol	118-79-6	0.1	%	72.5	87.3	104	---	---
EP075(SIM)T: PAH Surrogates								



Page : 13 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QED9537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER	Client sample ID			Client sampling date / time					Dup01
	CAS Number	LOR	Unit	MW06	MW07	MW08	MW09		
EP075(SIM)T: PAH Surrogates - Continued				17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	
				EB0914886-006	EB0914886-007	EB0914886-008	EB0914886-009	EB0914886-010	
	2-Fluorobiphenyl	321-60-8	0.1	%	55.8	77.4	72.4	-----	
	Anthracene-d10	1719-06-8	0.1	%	80.9	97.0	92.7	-----	
4-Terphenyl-d14	1718-51-0	0.1	%	79.3	92.9	89.6	-----		
EP080S: TPH(V)/BTX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	100	95.1	94.7	103	100	
Toluene-D8	2037-26-5	0.1	%	97.6	92.4	92.1	97.2	92.6	
4-Bromofluorobenzene	460-00-4	0.1	%	99.0	95.4	94.2	96.0	93.0	



Page : 14 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Compound		Client sample ID		Client sampling date / time		Dup02		CR13		CR14		CR15		Drain 1	
		CAS Number	LOR	Unit		17-SEP-2009 15:00	EB0914886-011	17-SEP-2009 15:00	EB0914886-012	17-SEP-2009 15:00	EB0914886-013	17-SEP-2009 15:00	EB0914886-014	17-SEP-2009 15:00	EB0914886-015
EG020F: Dissolved Metals by ICP-MS															
Arsenic		7440-38-2	0.001	mg/L		0.007		0.022		<0.001		0.002		<0.001	
Cadmium		7440-43-9	0.0001	mg/L		0.0004		0.0004		<0.0001		0.0002		0.0011	
Chromium		7440-47-3	0.001	mg/L		0.011		<0.001		<0.001		<0.001		0.002	
Copper		7440-50-8	0.001	mg/L		0.015		0.007		0.006		0.002		0.020	
Lead		7439-92-1	0.001	mg/L		0.001		<0.001		<0.001		<0.001		0.013	
Nickel		7440-02-0	0.001	mg/L		0.046		0.001		0.002		0.002		0.002	
Zinc		7440-66-6	0.005	mg/L		0.016		0.025		0.015		0.057		0.090	
EG035F: Dissolved Mercury by FIMS															
Mercury		7439-97-6	0.0001	mg/L		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001	
EP074A: Monocyclic Aromatic Hydrocarbons															
Benzene		71-43-2	1	µg/L		---		<2		---		---		<2	
Toluene		108-88-3	2	µg/L		---		<2		---		---		<2	
Ethylbenzene		100-41-4	2	µg/L		---		<2		---		---		<2	
meta- & para-Xylene		108-38-3 106-42-3	2	µg/L		---		<4		---		---		<4	
Styrene		100-42-5	5	µg/L		---		<5		---		---		<5	
ortho-Xylene		95-47-6	2	µg/L		---		<3		---		---		<2	
Isopropylbenzene		98-82-8	5	µg/L		---		<5		---		---		<5	
n-Propylbenzene		103-65-1	5	µg/L		---		<5		---		---		<5	
1,3,5-Trimethylbenzene		108-67-8	5	µg/L		---		<5		---		---		<5	
sec-Butylbenzene		135-98-8	5	µg/L		---		<5		---		---		<5	
1,2,4-Trimethylbenzene		95-63-6	5	µg/L		---		<5		---		---		<5	
tert-Butylbenzene		98-06-6	5	µg/L		---		<5		---		---		<5	
p-Isopropyltoluene		99-87-6	5	µg/L		---		<5		---		---		<5	
n-Butylbenzene		104-51-8	5	µg/L		---		<5		---		---		<5	
EP074B: Oxygenated Compounds															
Vinyl Acetate		108-05-4	50	µg/L		---		<50		---		---		<50	
2-Butanone (MEK)		78-93-3	50	µg/L		---		<50		---		---		<50	
4-Methyl-2-pentanone (MIBK)		108-10-1	50	µg/L		---		<50		---		---		<50	
2-Hexanone (MBK)		591-78-6	50	µg/L		---		<50		---		---		<50	
EP074C: Sulfonated Compounds															
Carbon disulfide		75-15-0	5	µg/L		---		<5		---		---		<5	
EP074D: Fumigants															
2,2-Dichloropropane		594-20-7	5	µg/L		---		<5		---		---		<5	
1,2-Dichloropropane		78-87-5	5	µg/L		---		<5		---		---		<5	
cis-1,3-Dichloropropylene		10061-01-5	5	µg/L		---		<5		---		---		<5	
trans-1,3-Dichloropropylene		10061-02-6	5	µg/L		---		<5		---		---		<5	
1,2-Dibromoethane (EDB)		106-93-4	5	µg/L		---		<5		---		---		<5	



Page : 15 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

		Client sample ID		Client sampling date / time		Client sample ID		Client sampling date / time		Client sample ID		Client sampling date / time	
Compound	CAS Number	LOR	Unit	Dup02	CR13	CR14	CR15	Drain 1		Dup02	CR13	CR14	CR15
EP074E: Halogenated Aliphatic Compounds													
Dichlorodifluoromethane	75-71-8	50	µg/L	---	<50	---	---	<50		---	<50	---	<50
Chloromethane	74-87-3	50	µg/L	---	<50	---	---	<50		---	<50	---	<50
Vinyl chloride	75-01-4	50	µg/L	---	<50	---	---	<50		---	<50	---	<50
Bromomethane	74-83-9	50	µg/L	---	<50	---	---	<50		---	<50	---	<50
Chloroethane	75-00-3	50	µg/L	---	<50	---	---	<50		---	<50	---	<50
Trichlorofluoromethane	75-69-4	50	µg/L	---	<50	---	---	<50		---	<50	---	<50
1,1-Dichloroethene	75-35-4	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
Iodomethane	74-88-4	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
trans-1,2-Dichloroethene	156-60-5	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,1-Dichloroethane	75-34-3	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
cis-1,2-Dichloroethene	156-59-2	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,1,1-Trichloroethane	71-55-6	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,1-Dichloropropylene	563-58-6	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
Carbon Tetrachloride	56-23-5	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,2-Dichloroethane	107-06-2	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
Trichloroethene	79-01-6	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
Dibromomethane	74-95-3	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,1,2-Trichloroethane	79-00-5	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,3-Dichloropropane	142-28-9	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
Tetrachloroethene	127-18-4	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,2,3-Trichloropropane	96-18-4	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
Pentachloroethane	76-01-7	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
Hexachlorobutadiene	87-68-3	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
EP074F: Halogenated Aromatic Compounds													
Chlorobenzene	108-90-7	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
Bromobenzene	106-86-1	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
2-Chlorotoluene	95-49-8	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
4-Chlorotoluene	106-43-4	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,3-Dichlorobenzene	541-73-1	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,4-Dichlorobenzene	106-46-7	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,2-Dichlorobenzene	95-50-1	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,2,4-Trichlorobenzene	120-82-1	5	µg/L	---	<5	---	---	<5		---	<5	---	<5
1,2,3-Trichlorobenzene	87-61-6	5	µg/L	---	<5	---	---	<5		---	<5	---	<5



Page : 16 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Compound		Client sample ID		Client sampling date / time		Dup02		CR13		CR14		CR15		Drain 1	
		CAS Number	LOR	Unit		17-SEP-2009 15:00	EB0914886-011	17-SEP-2009 15:00	EB0914886-012	17-SEP-2009 15:00	EB0914886-013	17-SEP-2009 15:00	EB0914886-014	17-SEP-2009 15:00	EB0914886-015
EP074G: Trihalomethanes															
Chloroform		67-66-3	5	µg/L		---	---	<5	---	---	---	---	---	<5	---
Bromodichloromethane		75-27-4	5	µg/L		---	---	<5	---	---	---	---	---	<5	---
Dibromochloromethane		124-48-1	5	µg/L		---	---	<5	---	---	---	---	---	<5	---
Bromoform		75-25-2	5	µg/L		---	---	<5	---	---	---	---	---	<5	---
EP075(SIM)A: Phenolic Compounds															
Phenol		108-95-2	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
2-Chlorophenol		95-57-8	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
2-Methylphenol		95-48-7	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
3- & 4-Methylphenol		1319-77-3	2.0	µg/L		---	---	<2.0	---	---	---	---	---	<2.0	---
2-Nitrophenol		88-75-5	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
2,4-Dimethylphenol		105-67-9	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
2,4-Dichlorophenol		120-83-2	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
2,6-Dichlorophenol		87-85-0	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
4-Chloro-3-Methylphenol		59-50-7	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
2,4,6-Trichlorophenol		88-06-2	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
2,4,5-Trichlorophenol		95-95-4	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Pentachlorophenol		87-86-5	2.0	µg/L		---	---	<2.0	---	---	---	---	---	<2.0	---
2,3,4,6-Tetrachlorophenol		58-90-2	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons															
Naphthalene		91-20-3	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
2-Methylnaphthalene		91-57-6	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Acenaphthylene		208-96-8	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Acenaphthene		83-32-9	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Fluorene		86-73-7	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Phenanthrene		85-01-8	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Anthracene		120-12-7	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Fluoranthene		206-44-0	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Pyrene		129-00-0	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Benz(a)anthracene		56-55-3	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Chrysene		218-01-9	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Benzo(b)fluoranthene		205-99-2	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Benzo(k)fluoranthene		207-08-9	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Benzo(a)pyrene		50-32-8	0.5	µg/L		---	---	<0.5	---	---	---	---	---	<0.5	---
Indeno(1,2,3-cd)pyrene		193-39-5	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Dibenz(a,h)anthracene		53-70-3	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
Benzo(g,h,i)perylene		191-24-2	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---
^ Sum of polycyclic aromatic hydrocarbons		---	1.0	µg/L		---	---	<1.0	---	---	---	---	---	<1.0	---



Page : 17 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Analytical Results

Sub-Matrix: WATER

Sub-Matrix: WATER		Client sample ID			Client sampling date / time				
Compound	CAS Number	LOR	Unit	Dup02	CR13	CR14	CR15	Drain 1	
				17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	17-SEP-2009 15:00	
EB0914886-011									
EB0914886-012									
EB0914886-013									
EB0914886-014									
EB0914886-015									
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	---	20	µg/L	60	<20	<20	<20	<20	
C10 - C14 Fraction	---	50	µg/L	550	70	<50	<50	<50	
C15 - C28 Fraction	---	100	µg/L	1400	500	<100	<100	200	
C29 - C36 Fraction	---	50	µg/L	280	530	<50	<50	80	
^ C10 - C36 Fraction (sum)	---	50	µg/L	2280	1110	---	---	330	
C10 - C36 Fraction (sum)	---	50	µg/L	---	---	<50	<50	---	
EP080: BTEX									
Benzene	71-43-2	1	µg/L	6	---	<1	<1	---	
Toluene	108-88-3	2	µg/L	42	---	<2	<2	---	
Ethylbenzene	100-41-4	2	µg/L	7	---	<2	<2	---	
meta- & para-Xylene	108-38-3	2	µg/L	6	---	<2	<2	---	
ortho-Xylene	95-47-6	2	µg/L	4	---	<2	<2	---	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	---	93.4	---	---	97.4	
Toluene-D8	2037-26-5	0.1	%	---	92.7	---	---	92.2	
4-Bromofluorobenzene	460-00-4	0.1	%	---	90.7	---	---	86.6	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.1	%	---	31.8	---	---	42.6	
2-Chlorophenol-D4	93951-73-6	0.1	%	---	75.9	---	---	94.3	
2,4,6-Tribromophenol	118-79-6	0.1	%	---	91.2	---	---	110	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%	---	103	---	---	91.5	
Anthracene-d10	1719-06-8	0.1	%	---	82.0	---	---	86.1	
4-Terphenyl-d14	1718-51-0	0.1	%	---	80.3	---	---	90.2	
EP080S: TPH(V)/BTX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	98.3	104	105	105	109	
Toluene-D8	2037-26-5	0.1	%	92.6	95.4	96.3	95.6	95.1	
4-Bromofluorobenzene	460-00-4	0.1	%	90.6	92.6	92.0	91.2	88.4	



Page : 18 of 18
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP070S:TPH Surrogates - Speciation			
2-Fluorobiphenyl	321-60-8	60	140
2-Bromonaphthalene	580-13-2	60	140
EP074S: VOC Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	120
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	94
2-Chlorophenol-D4	93951-73-6	23	134
2,4,6-Tribromophenol	118-79-6	10	123
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	43	116
Anthracene-d10	1719-06-8	27	133
4-Terphenyl-d14	1718-51-0	33	141
EP080S: TPH(V)/BTX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	80	120
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115



Environmental Division

QUALITY CONTROL REPORT

Work Order	: EB0914886	Page	: 1 of 11
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Klimister
Address	: EASTERN BUSWAY PROJECT PO BOX 3848 STH BRISBANE 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3026 7286	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3026 7306	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park	Date Samples Received	: 18-SEP-2009
C-O-C number	: ---	Issue Date	: 01-OCT-2009
Sampler	: ---	No. of samples received	: 16
Order number	: ---	No. of samples analysed	: 15
Quote number	: EN/003/09		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



**WORLD RECOGNISED
ACCREDITATION**

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Matt Frost	Organic Instrument Chemist	Organics
Nancy Wang	Instrument Chemist	Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics



Page : 2 of 11
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :

Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
= Indicates failed QC



Page : 3 of 11
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: WATER

Sub-Matrix: WATER		Laboratory sample ID		Client sample ID		Method: Compound		CAS Number		LOR		Unit		Original Result		Duplicate Result		RPD (%)		Recovery Limits (%)			
EG020F: Dissolved Metals by ICP-MS (QC Lot: 1111406)																							
EB0914767-001		Anonymous		EG020A-F: Cadmium		7440-43-9		0.0001		mg/L		0.0002		0.0002		0.0		0.0		No Limit			
				EG020A-F: Arsenic		7440-38-2		0.001		mg/L		0.001		0.002		0.0		0.0		No Limit			
				EG020A-F: Chromium		7440-47-3		0.001		mg/L		<0.001		<0.001		0.0		0.0		No Limit			
				EG020A-F: Copper		7440-50-8		0.001		mg/L		0.034		0.035		0.0		0.0		0% - 20%			
				EG020A-F: Lead		7439-92-1		0.001		mg/L		<0.001		<0.001		0.0		0.0		No Limit			
				EG020A-F: Nickel		7440-02-0		0.001		mg/L		0.001		0.001		0.0		0.0		No Limit			
				EG020A-F: Zinc		7440-66-6		0.005		mg/L		0.026		0.025		0.0		0.0		No Limit			
				EG020A-F: Cadmium		7440-43-9		0.0001		mg/L		<0.0001		<0.0001		0.0		0.0		No Limit			
				EG020A-F: Arsenic		7440-38-2		0.001		mg/L		0.003		0.003		0.0		0.0		No Limit			
				EG020A-F: Chromium		7440-47-3		0.001		mg/L		0.019		0.017		10.7		0.0		0% - 50%			
EB0914886-005		MW05		EG020A-F: Copper		7440-50-8		0.001		mg/L		0.004		0.004		0.0		0.0		No Limit			
				EG020A-F: Lead		7439-92-1		0.001		mg/L		0.001		0.001		0.0		0.0		No Limit			
				EG020A-F: Nickel		7440-02-0		0.001		mg/L		0.012		0.012		0.0		0.0		0% - 50%			
				EG020A-F: Zinc		7440-66-6		0.005		mg/L		0.018		0.017		0.0		0.0		No Limit			
EG035F: Dissolved Mercury by FIMS (QC Lot: 1111405)																							
EB0914767-001		Anonymous		EG035F: Mercury		7439-97-6		0.0001		mg/L		<0.0001		<0.0001		0.0		0.0		No Limit			
EB0914886-005		MW05		EG035F: Mercury		7439-97-6		0.0001		mg/L		<0.0001		<0.0001		0.0		0.0		No Limit			
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1107866)																							
EB0914886-003		MW03		EP074: Benzene		71-43-2		1		µg/L		<2		<2		0.0		0.0		No Limit			
				EP074: Toluene		108-88-3		2		µg/L		<2		<2		0.0		0.0		No Limit			
				EP074: Ethylbenzene		100-41-4		2		µg/L		<2		<2		0.0		0.0		No Limit			
				EP074: meta- & para-Xylene		108-38-3		2		µg/L		<4		<4		0.0		0.0		No Limit			
						106-42-3																	
				EP074: ortho-Xylene		95-47-6		2		µg/L		<2		<2		0.0		0.0		0.0		No Limit	
				EP074: Styrene		100-42-5		5		µg/L		<5		<5		0.0		0.0		0.0		No Limit	
				EP074: Isopropylbenzene		98-82-8		5		µg/L		<5		<5		0.0		0.0		0.0		No Limit	
				EP074: n-Propylbenzene		103-65-1		5		µg/L		<5		<5		0.0		0.0		0.0		No Limit	
				EP074: 1,3,5-Trimethylbenzene		108-67-8		5		µg/L		<5		<5		0.0		0.0		0.0		No Limit	
EB0914886-003		MW03		EP074: sec-Butylbenzene		135-98-8		5		µg/L		<5		<5		0.0		0.0		No Limit			
				EP074: 1,2,4-Trimethylbenzene		95-63-6		5		µg/L		<5		<5		0.0		0.0		No Limit			
				EP074: tert-Butylbenzene		98-06-6		5		µg/L		<5		<5		0.0		0.0		No Limit			
				EP074: p-Isopropyltoluene		99-87-6		5		µg/L		<5		<5		0.0		0.0		No Limit			
				EP074: n-Butylbenzene		104-51-8		5		µg/L		<5		<5		0.0		0.0		No Limit			
EP074B: Oxygenated Compounds (QC Lot: 1107866)																							
EB0914886-003		MW03		EP074: Vinyl Acetate		108-05-4		50		µg/L		<50		<50		0.0		0.0		No Limit			



Page : 4 of 11
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER			Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074B: Oxygenated Compounds (QC Lot: 1107866) - continued									
EB0914886-003	MW03	EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	0.0	No Limit
		EP074: 2-Hexanone (MIBK)	591-78-6	50	µg/L	<50	<50	0.0	No Limit
EP074C: Sulfonated Compounds (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	0.0	No Limit
EP074D: Fumigants (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: 2,2-Dichloropropane	594-20-7	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichloropropane	78-87-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1-Dichloroethene	75-35-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Iodomethane	74-88-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,2-Dichloroethene	156-60-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1-Dichloroethane	75-34-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,2-Dichloroethene	156-59-2	5	µg/L	<5	<5	0.0	No Limit
EB0914886-003	MW03	EP074: 1,1,1-Trichloroethane	71-55-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2-Dichloroethane	107-06-2	5	µg/L	<5	<5	0.0	No Limit
		EP074: Trichloroethene	79-01-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2-Trichloroethane	79-00-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,3-Dichloropropane	142-28-9	5	µg/L	<5	<5	0.0	No Limit
		EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	0.0	No Limit
		EP074: cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	0.0	No Limit
		EP074: 1,2,3-Trichloropropane	96-18-4	5	µg/L	<5	<5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	5	µg/L	<5	<5	0.0	No Limit
EB0914886-003	MW03	EP074: 1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	0.0	No Limit
		EP074: Hexachlorobutadiene	87-68-3	5	µg/L	<5	<5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloromethane	74-87-3	50	µg/L	<50	<50	0.0	No Limit
		EP074: Vinyl chloride	75-01-4	50	µg/L	<50	<50	0.0	No Limit
		EP074: Bromomethane	74-83-9	50	µg/L	<50	<50	0.0	No Limit
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	0.0	No Limit



Page : 5 of 11
Work Order : EB0914886
Client : SINCLAIR KNIGHT MERZ
Project : QE09537

Sub-Matrix: WATER

Sub-Matrix: WATER		Laboratory Duplicate (DUP) Report										
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)			
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1107866) - continued												
EB0914886-003	MW03	EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	0.0	No Limit			
EP074F: Halogenated Aromatic Compounds (QC Lot: 1107866)												
EB0914886-003	MW03	EP074: Chlorobenzene	108-90-7	5	µg/L	<5	<5	0.0	No Limit			
		EP074: Bromobenzene	108-96-1	5	µg/L	<5	<5	0.0	No Limit			
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	0.0	No Limit			
		EP074: 4-Chlorotoluene	108-43-4	5	µg/L	<5	<5	0.0	No Limit			
		EP074: 1,3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	0.0	No Limit			
		EP074: 1,4-Dichlorobenzene	106-46-7	5	µg/L	<5	<5	0.0	No Limit			
		EP074: 1,2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	0.0	No Limit			
		EP074: 1,2,4-Trichlorobenzene	120-82-1	5	µg/L	<5	<5	0.0	No Limit			
		EP074: 1,2,3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	0.0	No Limit			
		EP074G: Trihalomethanes (QC Lot: 1107866)										
EB0914886-003	MW03	EP074: Chloroform	67-66-3	5	µg/L	<5	<5	0.0	No Limit			
		EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0	No Limit			
		EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	<5	0.0	No Limit			
		EP074: Bromoform	75-25-2	5	µg/L	<5	<5	0.0	No Limit			
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1107865)												
EB0914886-001	MW01	EP080: C6 - C9 Fraction		20	µg/L	<20	<20	0.0	No Limit			
EB0914886-011	Dup02	EP080: C6 - C9 Fraction		20	µg/L	60	60	0.0	No Limit			
EP080: BTEX (QC Lot: 1107865)												
EB0914886-001	MW01	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit			
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit			
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit			
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit			
			106-42-3									
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit			
		EP080: Benzene	71-43-2	1	µg/L	6	6	0.0	No Limit			
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit			
		EP080: Ethylbenzene	100-41-4	2	µg/L	7	7	0.0	No Limit			
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	6	7	0.0	No Limit			
EB0914886-011	Dup02		106-42-3									
		EP080: ortho-Xylene	95-47-6	2	µg/L	4	4	0.0	No Limit			